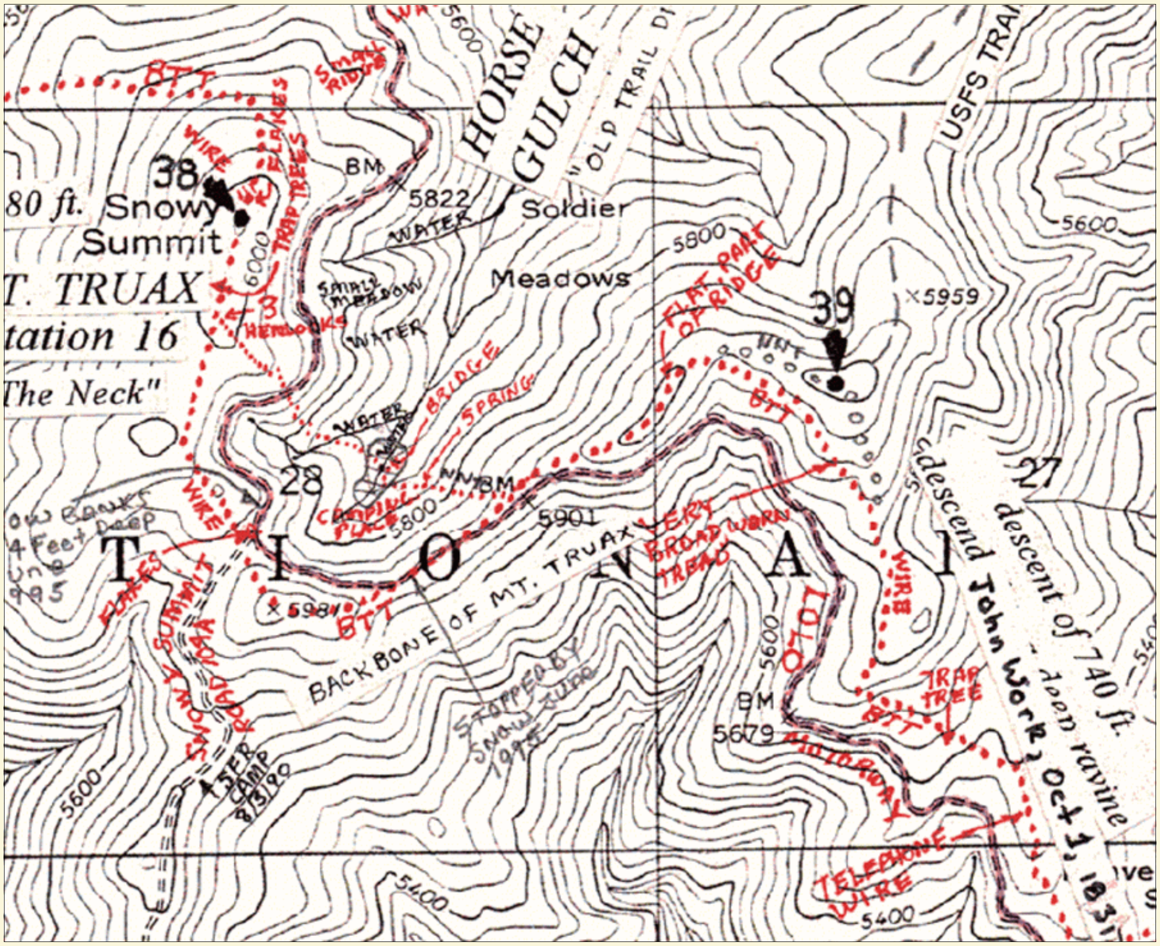
LOLO TRAIL HISTORY AND CARTOGRAPHY
Part VII, Research Maps D

Lolo Trail Research Field Maps, Folder F109

Historical Trails Research Report No. 0002
(Part 07, Research Maps D Field Maps F109.pdf)
(0002-MY-RESEARCH-MAPS-SFR Lolo Trail Research Field Maps, Folder F109 1985-2001)



Example Map, Snowy Summit on the Bird-Truax Trail 1866

Steve F. Russell, PhD, PE
Historic Trails Research
Ames, Iowa
1992

Historical Trails Research Report No. 0001
Lolo Trail Research Field Maps, Folder F109

REPORT SUMMARIZATION

This report pertains to the Lewis and Clark National Historic Landmark, the Lewis and Clark National Historic Trail, the Nez Perce National Historic Trail. It also applies to all the other trails in the Lolo Trail System: Northern Nez Perces Trail in 1866, Bird-Truax Trail 1866, Lewiston and Virginia City Wagon Road 1866, Route of John Work Fur Brigade 1831, Route of General O. O. Howard and the Nez Perce in 1877, John Mullan 1854, and other trails.

When I began my Lolo Trail System research in 1985, I started gathering all the historical map resources I could find. The ones I used up to 1992, are included in this report. I kept reorganizing the maps up to around 2001. In the early days of my hiking the trail, I carried topo maps of the area I hiked and made notations on them. During the subsequent winter, I added notation on them to try to create maps with complete detail on the old trails. In those days, I did not have a GPS, so I carried a compass, pace counter, and barometric altimeter so I could locate my position on the topo maps, using the elevation profile (Course and Distance). In the subsequent years, I had good-quality GPS equipment so I created newer maps with much better precision on trail and cam locations.

My motivation in preparing this small report on my early Lolo Trail System research was to show the baseline research, which led to my subsequent creation of precision map sets.

For information on Trail Research Methodology, Inference in Historical Trail Research, and this author, refer to the Appendix that follows the map pages.

Steve F. Russell

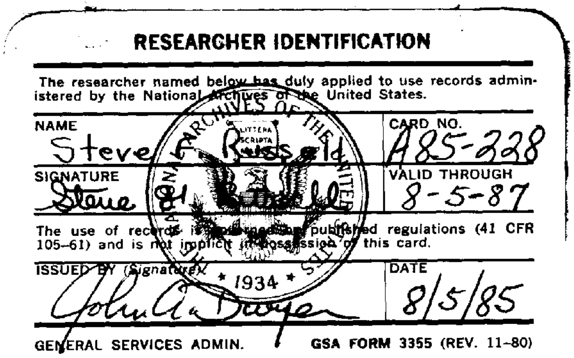
Lolo Trail
History and Cartography

PART VII, Research Maps D

Lolo Trail Research Field Maps, Folder F109

Smoking Place on the Lolo Trail

Steve F. Russell
Emeritus Associate Professor
Iowa State University
Ames, Iowa 50011
1985-2001



RESEARCHER IDENTIFICATION

The researcher named below has duly applied to use records administered by the National Archives of the United States.

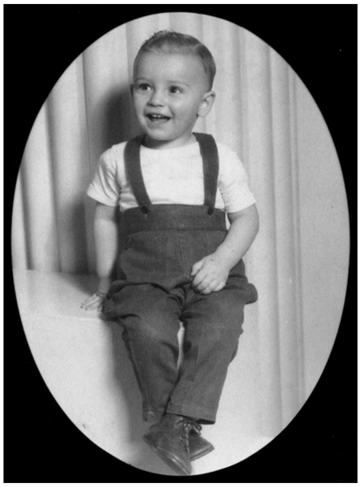
NAME Steve F. Russell	CARD NO. A85-228
SIGNATURE Steve F. Russell	VALID THROUGH 8-5-87

The use of records is governed by published regulations (41 CFR 105-61) and is not implicit in possession of this card.

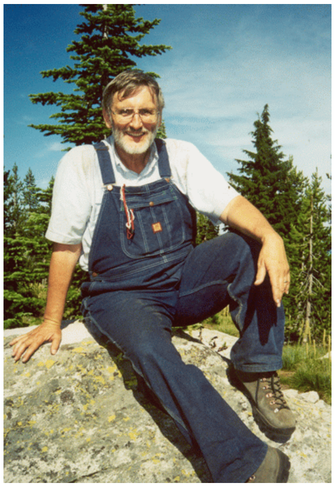
ISSUED BY (Signature) John A. Dwyer	DATE 8/5/85

1934

GENERAL SERVICES ADMIN. GSA FORM 3355 (REV. 11-80)



1946



2002

2014

Cover Photo

"Smoking Place on the Lolo Trail"

Photo by Steve F. Russell

Lolo Trail
History and Cartography

PART VII, Research Maps D

Lolo Trail Research Field Maps, Folder F109

1985-2001

The following are the field research maps of Steve F. Russell for the years 1985 through 2001. They were carried in the field and marked in the field. In 2001, this map series was discontinued in favor of using GPS and Computer Geographic Information Systems.

These maps have not been revised to make corrections since the 2001-2002 precision survey but they do show the state of the research in 2001. They have been included in this Lolo Trail report for their historical value.

Historical Trails Research Report No. 0001
Lolo Trail Research Field Maps, Folder F109

MAP SET INDEX - FOLDER FI09

Lolo Trail System: Field Research Masters

This map set documents tread locations, road locations, and place names along the entire Lolo Trail System.

I. Map Sequence #1, Maps 1-24, Pages 2-25: PDF page 8
✓*Bird-Truax Trail of 1866, Weippe prairie to Lolo Pass*
(Maps BTT16-31)
✓*Northern Nez Perces Trail of 1866, northern branch*
(Maps NNT 1-24)
✓*Lewis and Clark Route, Willow Ridge eastward to Lolo Montana*
(Maps LC 7B-24)

ll. Map Sequence #2, Maps 25-31, Pages 27-33: PDF page 71
✓*Northern nez Perces Trail of1805-06, southern branch, Weippe Prairie eastward to Willow Ridge* (Maps LC 1-7).
✓*Lewis and Clark Route from Weippe Prairie eastward to Willow Ridge* (Maps LC 1-7)

III. Map Sequence #3, Maps 32-35, Pages 35-38: PDF page 86
✓*Lewis and Clark Route, diversion to Lochsa River and Powell*
(Maps LC 25-28).

IV. Map Sequence #4, Maps 36-43, Pages 40-47: PDF page 95
✓*Original Lolo Motorway Route of1934-35, Weippe Prairie to Beaver Saddle* (Maps LM1-6).
✓*Original Lolo Motorway Route, Powell Junction to Lochsa Lodge*
(Maps LM15-16).

V. Map Sequence #5, Maps 44-67, Pages 49-72: PDF page 110
✓*Archive maps of the Lolo Trail System*

VI. Map Sequence #6, Maps 68-//, Pages 74-//: PDF page 159
✓Forest Visitor Maps. ✓Mud Creek Road. ✓French Mountain Road.
✓Weitas Creek Road Extension. ✓Frenchman Butte Road.
✓Pete King Road Extension.

These maps were originally part of my research map series in the Folder: Part 07, Research Maps D Field Maps F109.pdf

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Revision History:

(5-29-98) Updated maps from
1997 Field work.

(11-2-99) Updated maps from
1999 Field work.

MAP SET - FOLDER F109

LOLO TRAIL SYSTEM

RESEARCH MASTERS

Map Sequence #1, Maps LTS 1-24, Pages 2-25.

1. **Bird-Truax Trail of 1866 from Weippe Prairie eastward to Lolo Pass, maps BTT 16-31.**
2. **Northern Nez Perces Trail of 1866 (northern route), Weippe Prairie eastward to Lolo, Montana, maps NNT 1-24.**
3. **Lewis and Clark Route from Willow Ridge eastward to Lolo, Montana, maps LC 7B-24.**

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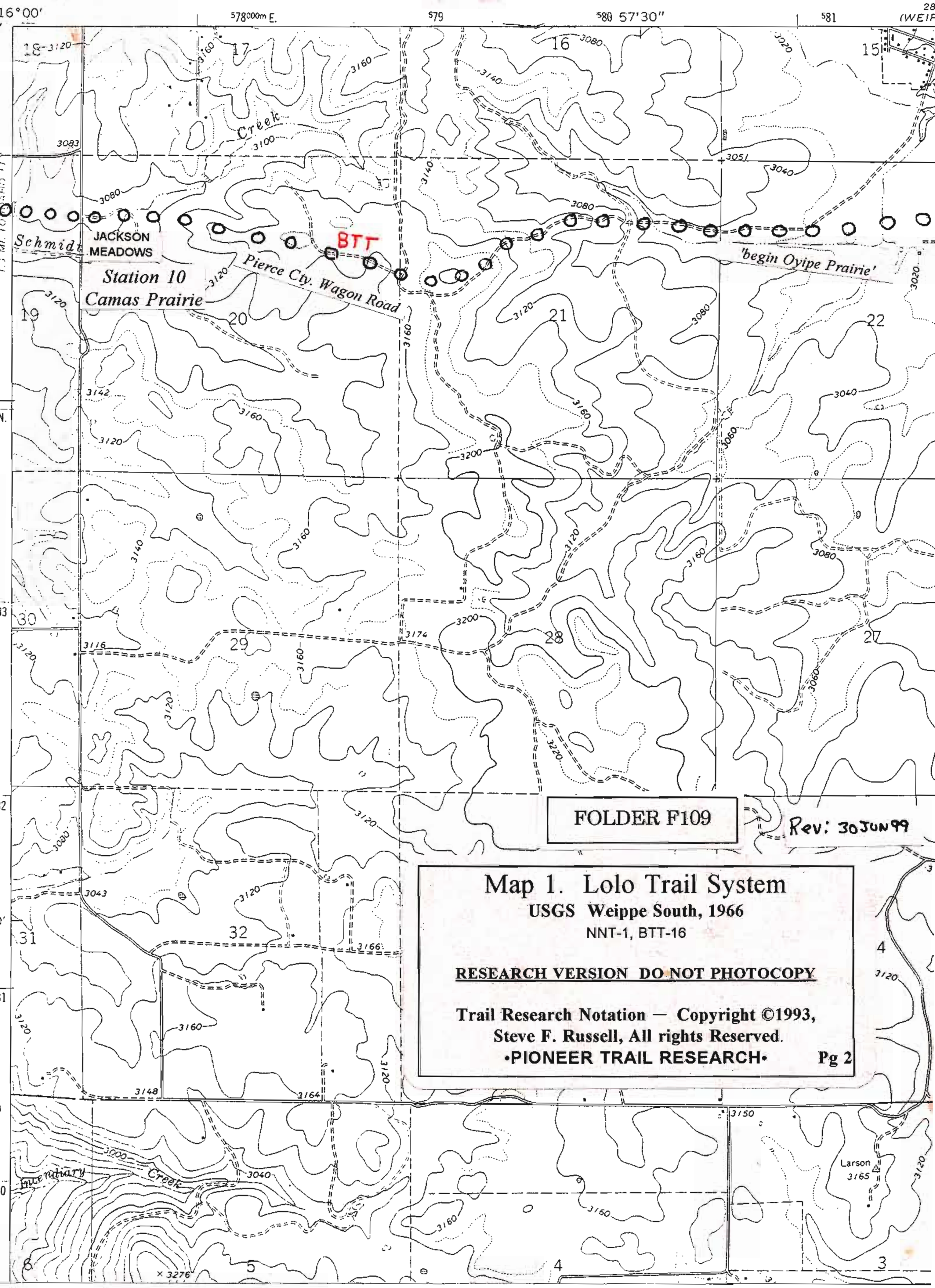

FOLDER F109

Rev: 30JUN99

Map 1. Lolo Trail System

USGS Weippe South, 1966

NNT-1, BTT-16

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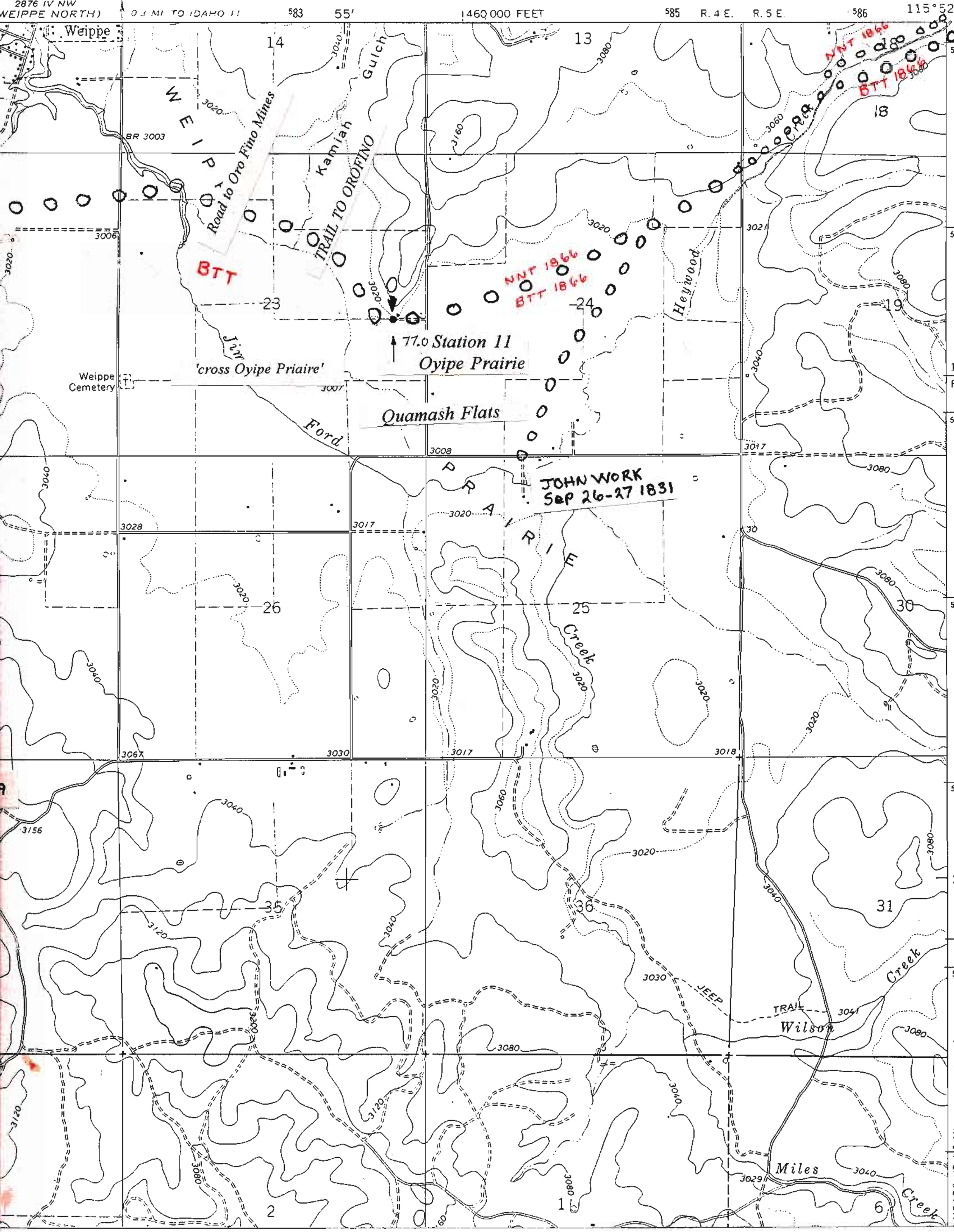
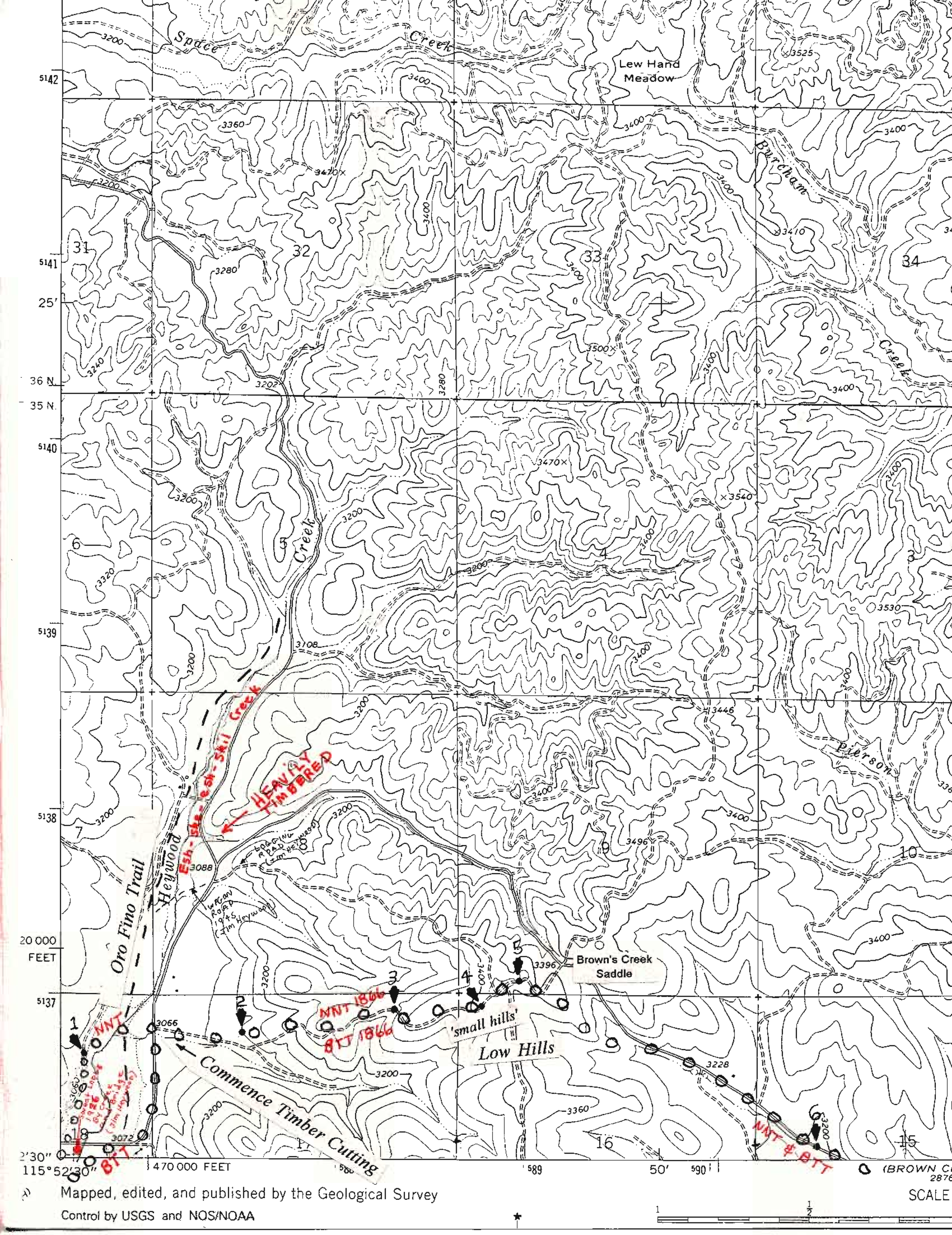
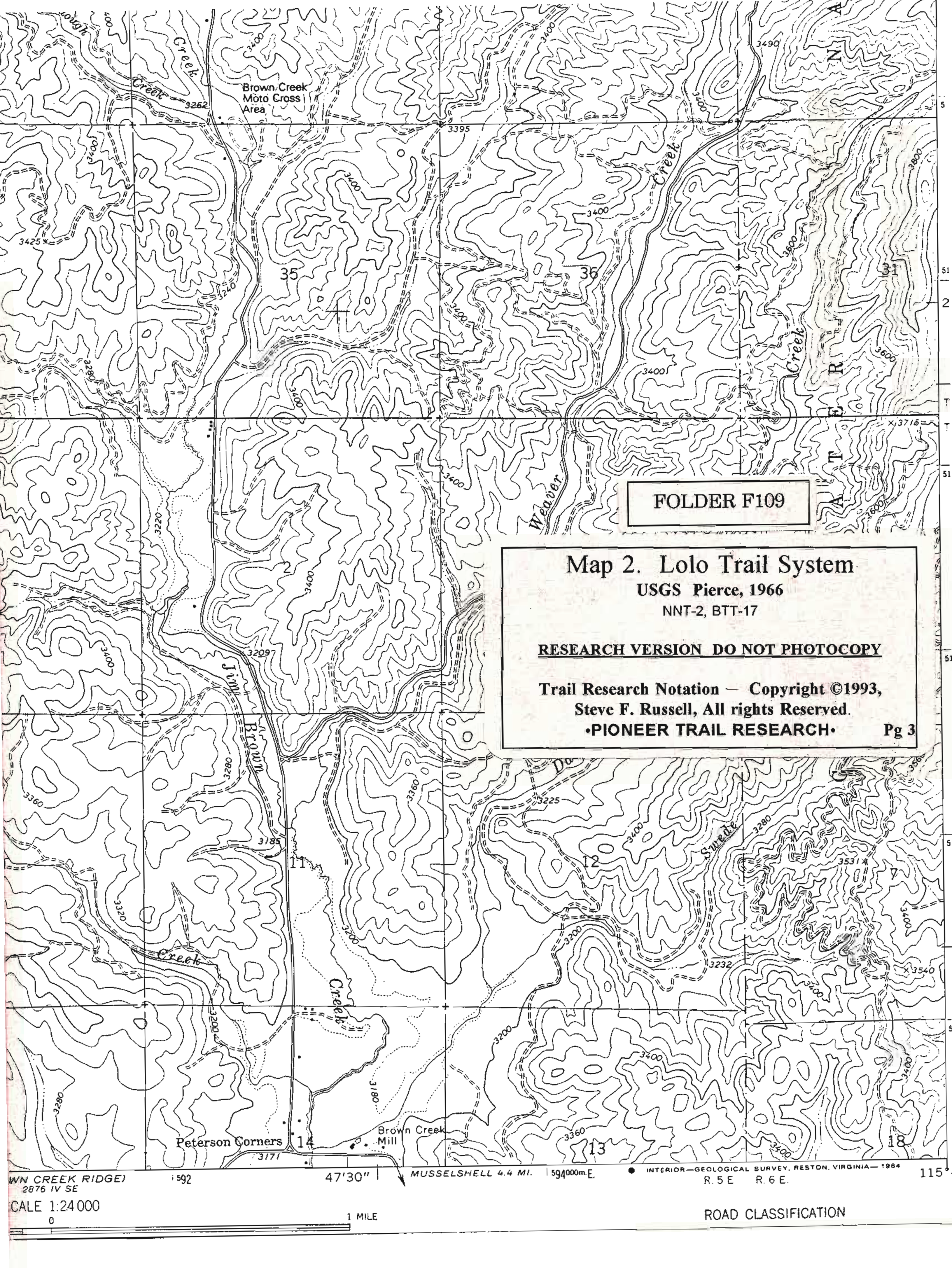

2876 IV NW
WEIPPE NORTH)
0.3 MI TO IDAHO 11
583
55'
1460 000 FEET
585
R. 4 E.
R. 5 E.
586
115°52
Weippe
14
13
WEIPPE
Road to Oro Fino Mines
Kamiah
Gulch
TRAIL TO OROFINO
BR 3003
3006
BTT
NNT 1866
BTT 1866
NNT 1866
BTT 1866
18
18
23
24
19
Heywood
Station 11
77.0
Oyipe Prairie
'cross Oyipe Priaire'
Weippe Cemetery
Jim
Ford
Quamash Flats
3007
3008
3017
3021
JOHN WORK
Sep 26-27 1831
PRAIRIE
3028
3017
26
25
30
Creek
3067
3030
3017
3018
3156
35
36
31
3030
JEEP
TRAIL
3041
Wilson
Creek
Miles
3029
Creek
2
1
6
3020
3040
3060
3080
3120
3160



Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA



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Map 2. Lolo Trail System

USGS Pierce, 1966

NNT-2, BTT-17

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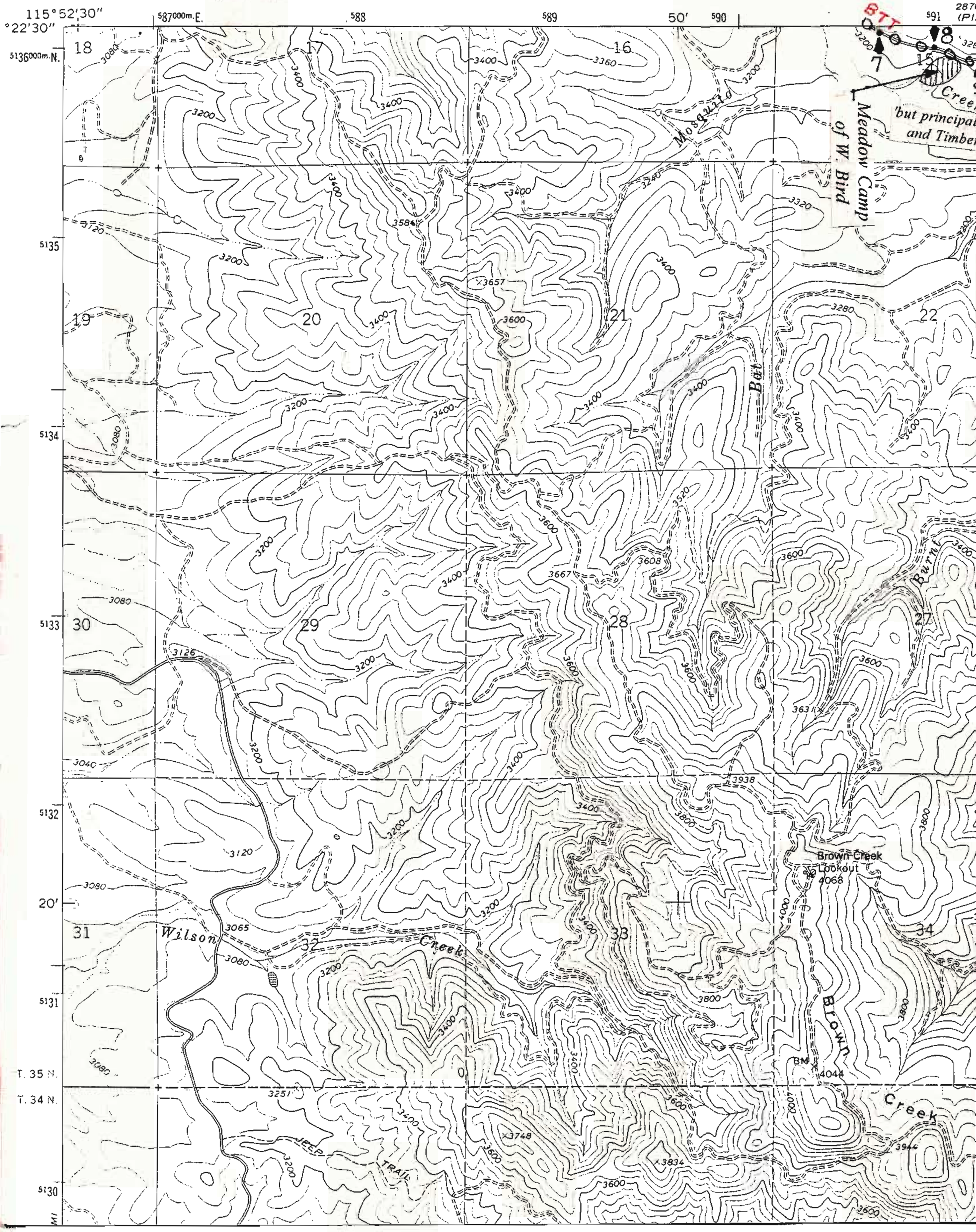
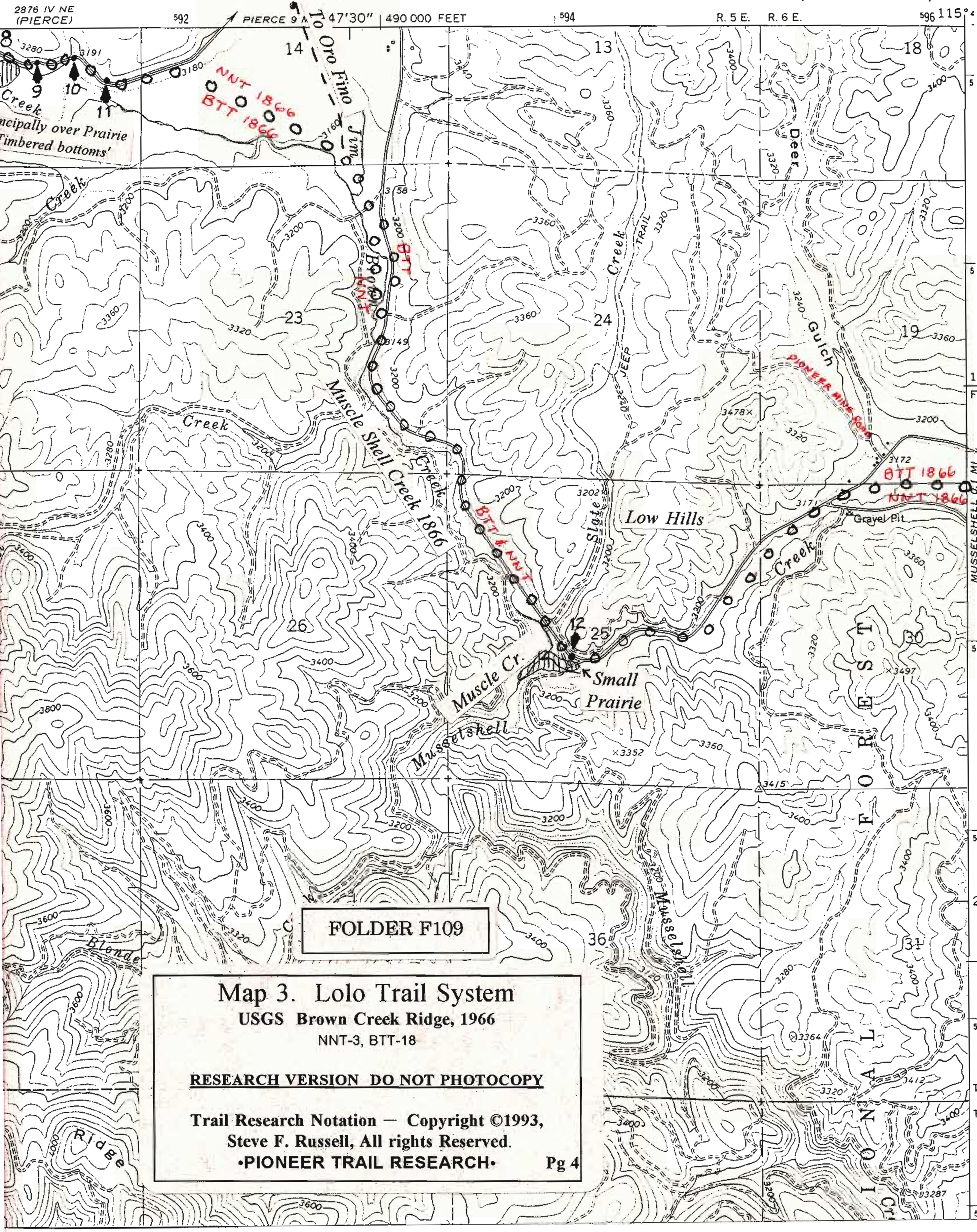
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



IDAHO
7.5 MINUTE SERIES (TOPOGRAPHIC)



FOLDER F109

Map 3. Lolo Trail System

USGS Brown Creek Ridge, 1966

NNT-3, BTT-18

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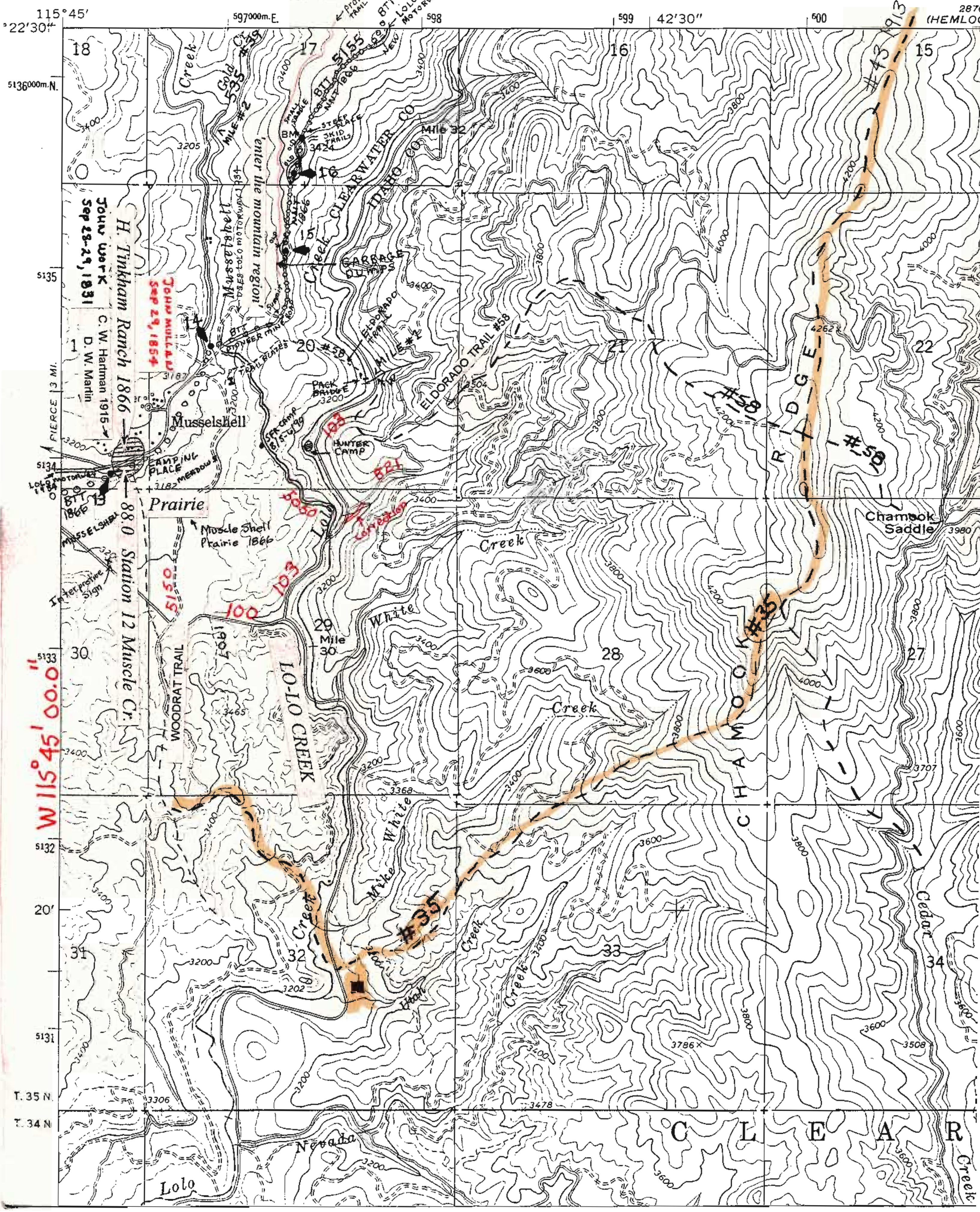
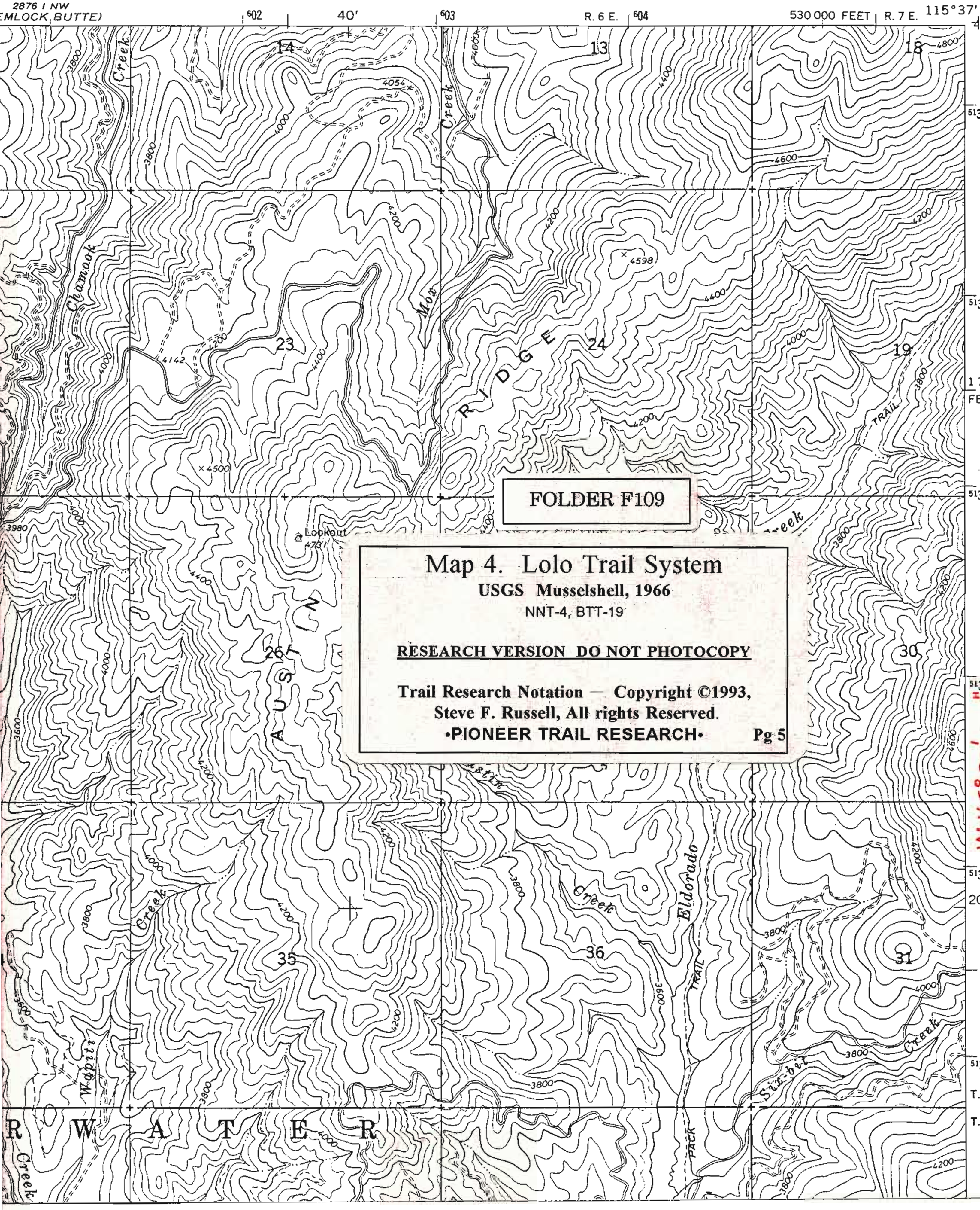
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



MUSSELSHELL QUADRANGLE
IDAHO
7.5 MINUTE SERIES (TOPOGRAPHIC)



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Map 4. Lolo Trail System

USGS Musselshell, 1966

NNT-4, BTT-19

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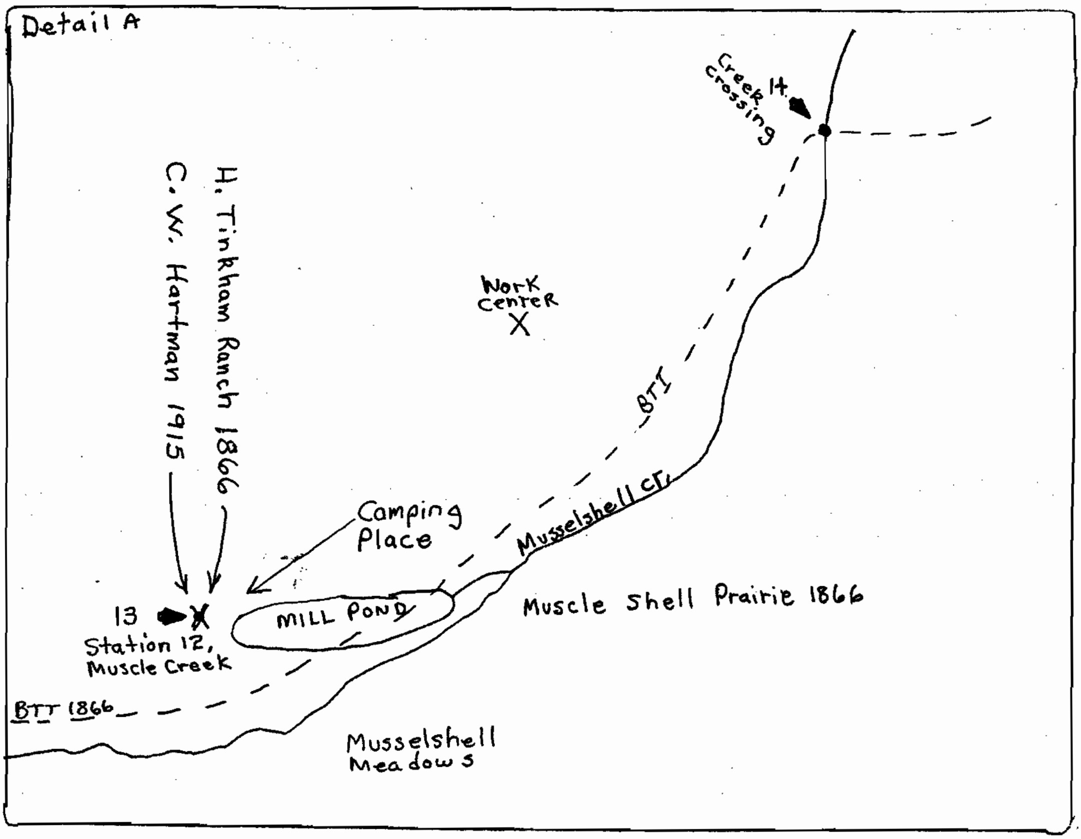

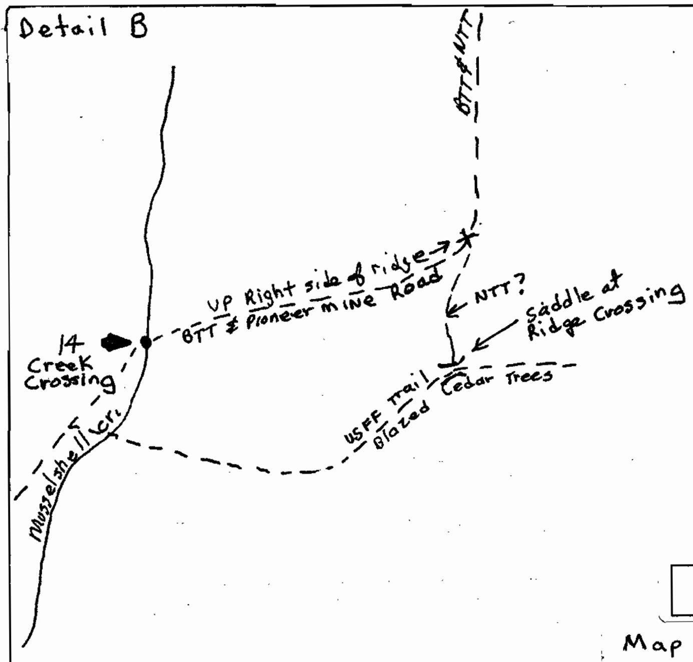

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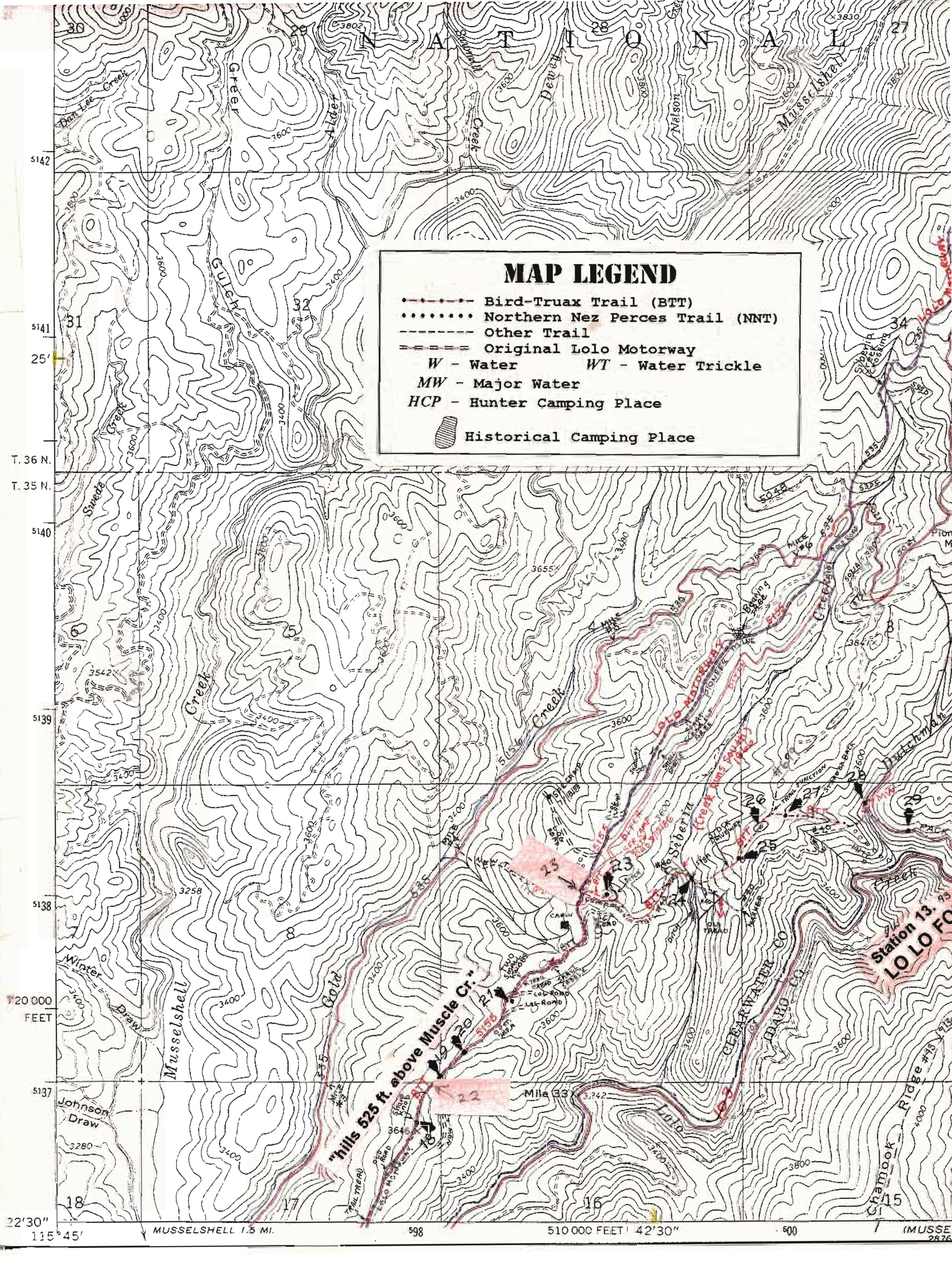
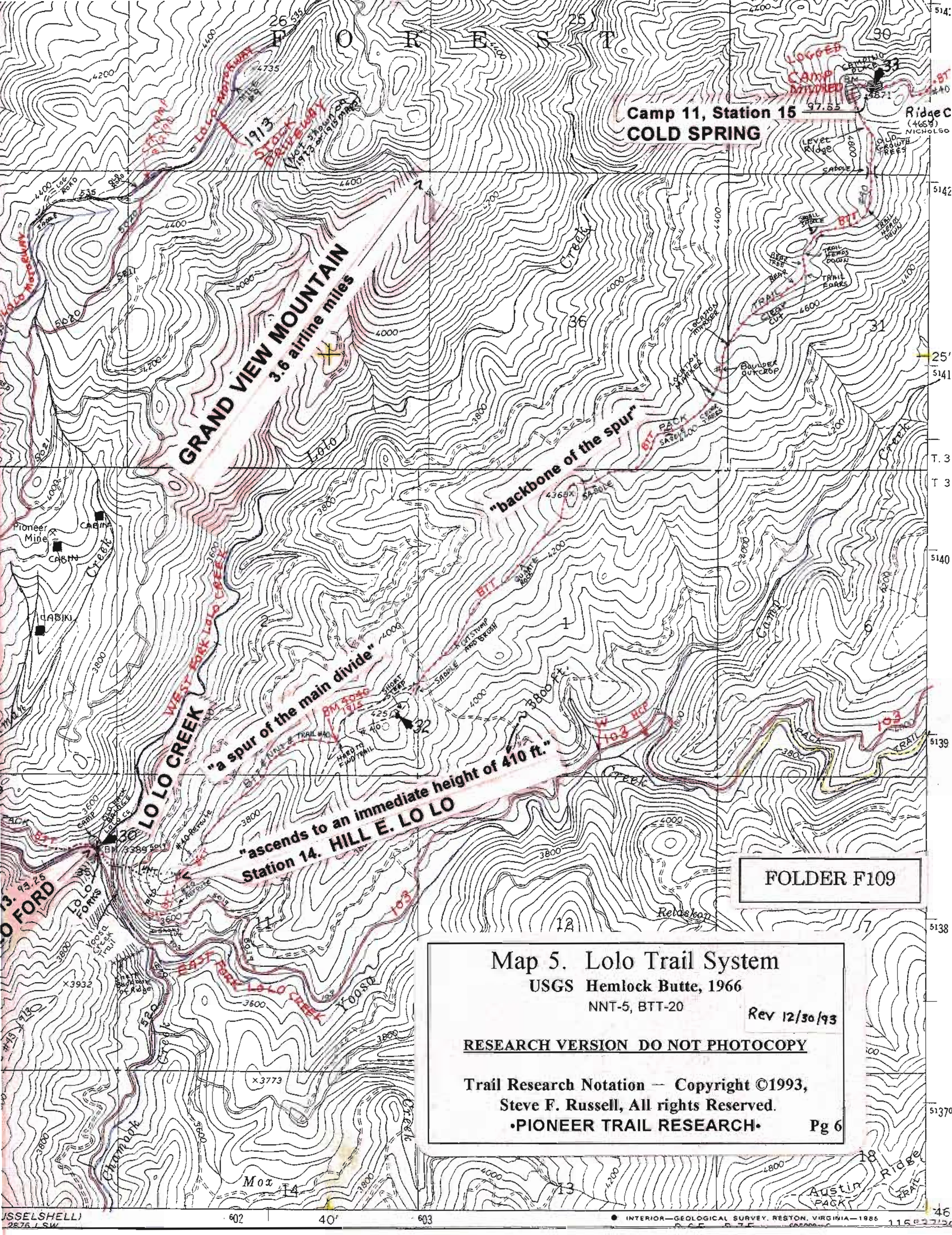
Map 4A Lolo Trail System

Steve F. Russell



MAP LEGEND

•-+-•-+- Bird-Truax Trail (BTT)
•••••••• Northern Nez Perces Trail (NNT)
-------- Other Trail
=·=·=·= Original Lolo Motorway
W - Water   *WT* - Water Trickle
MW - Major Water
HCP - Hunter Camping Place
▨ Historical Camping Place



Map 5. Lolo Trail System

USGS Hemlock Butte, 1966

NNT-5, BTT-20

Rev 12/30/93

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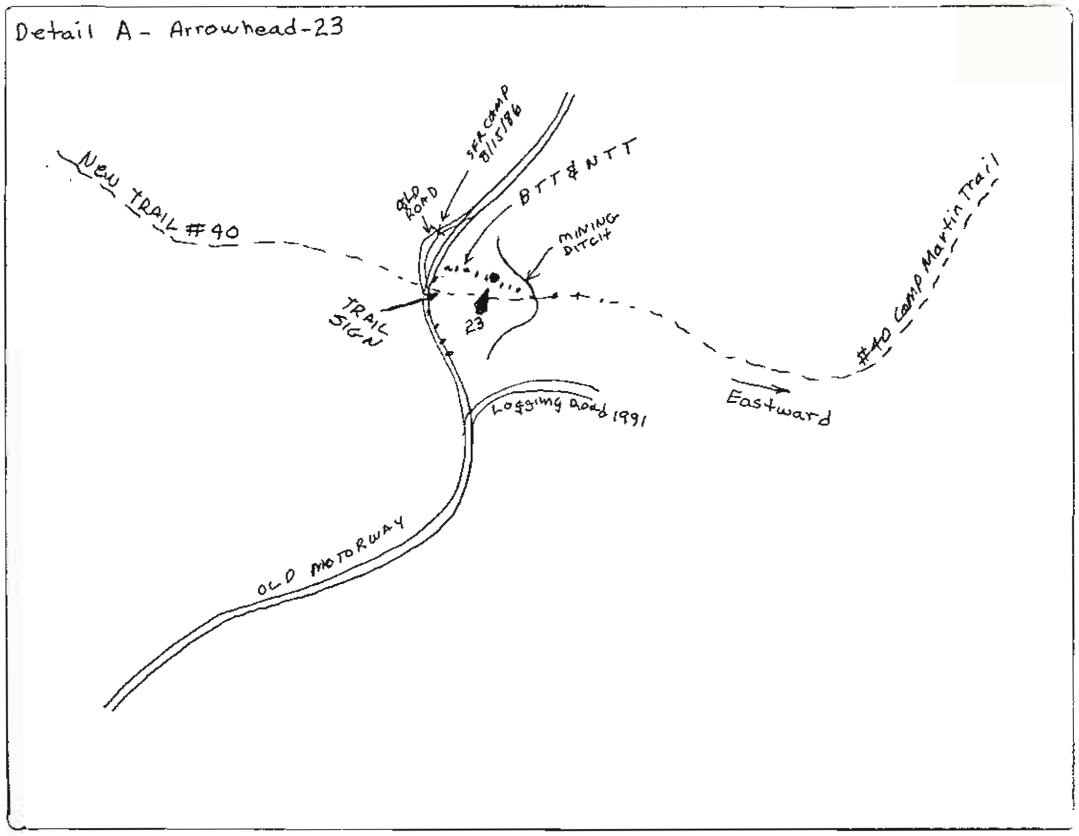
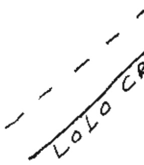
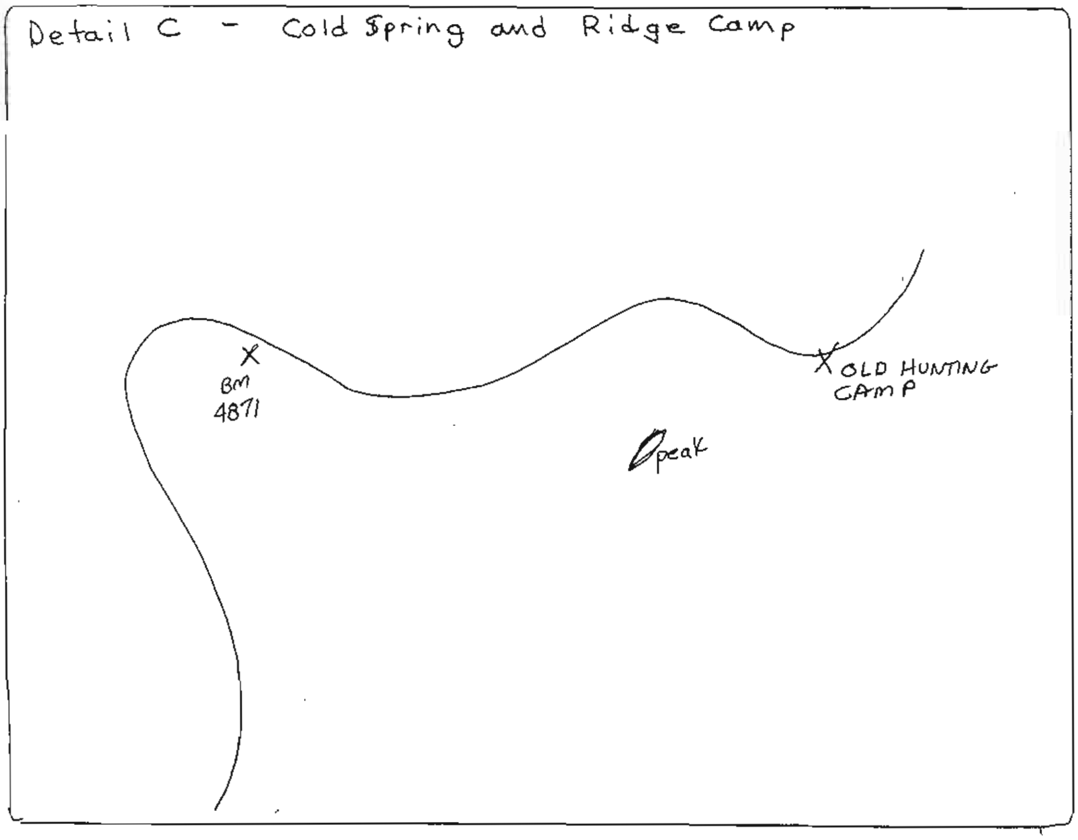
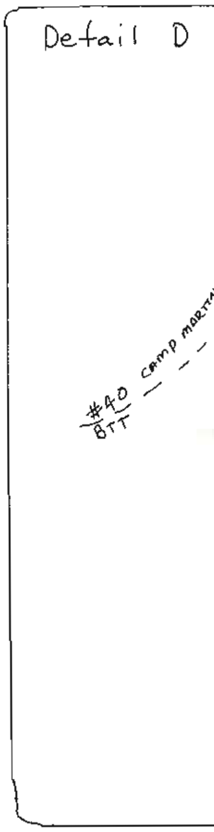
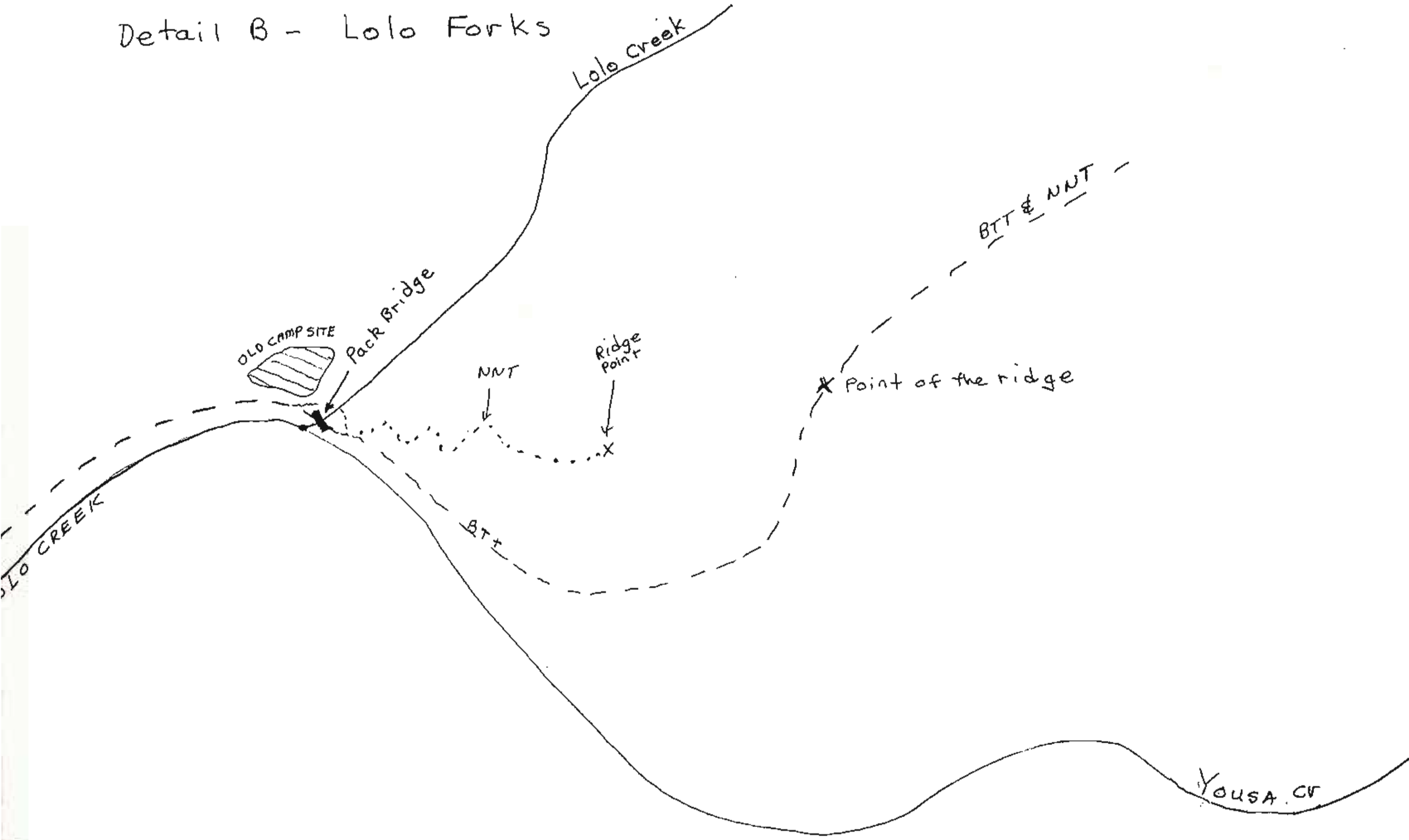

Detail A- Arrowhead-23



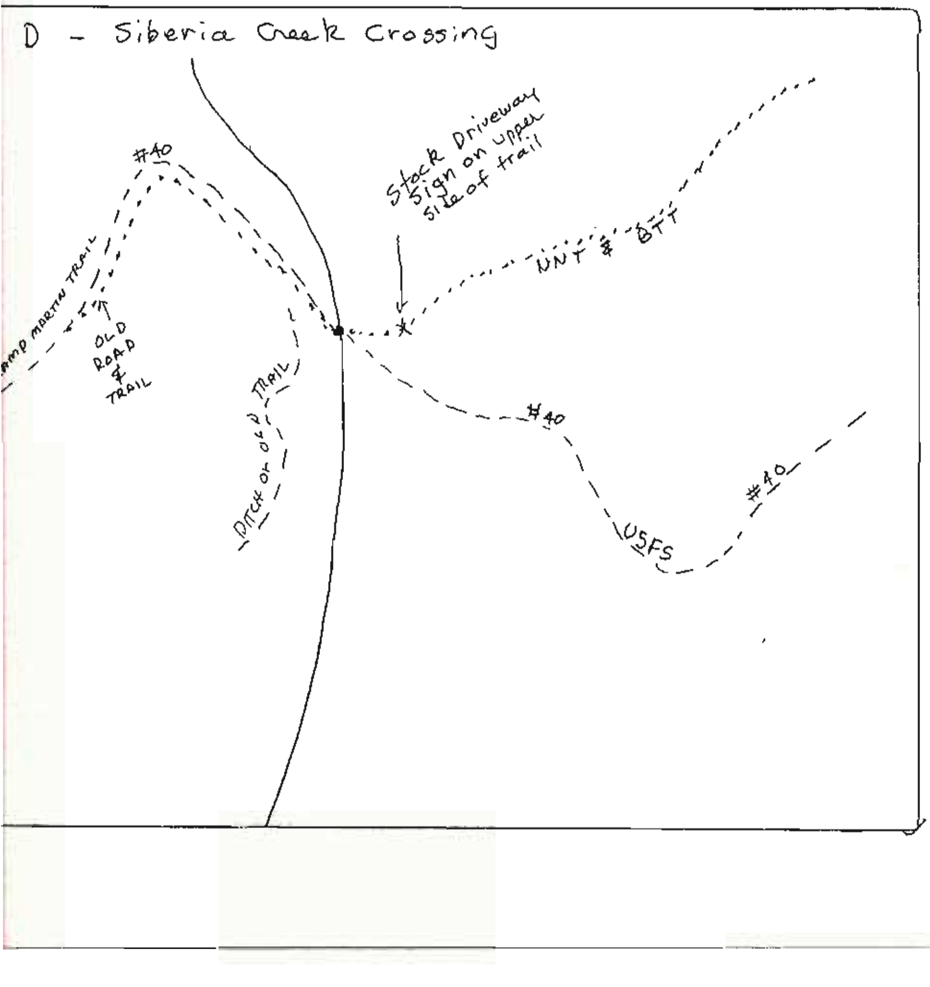

Detail C - Cold Spring and Ridge Camp


Detail D

Detail B - Lolo Forks



D - Siberia Creek Crossing



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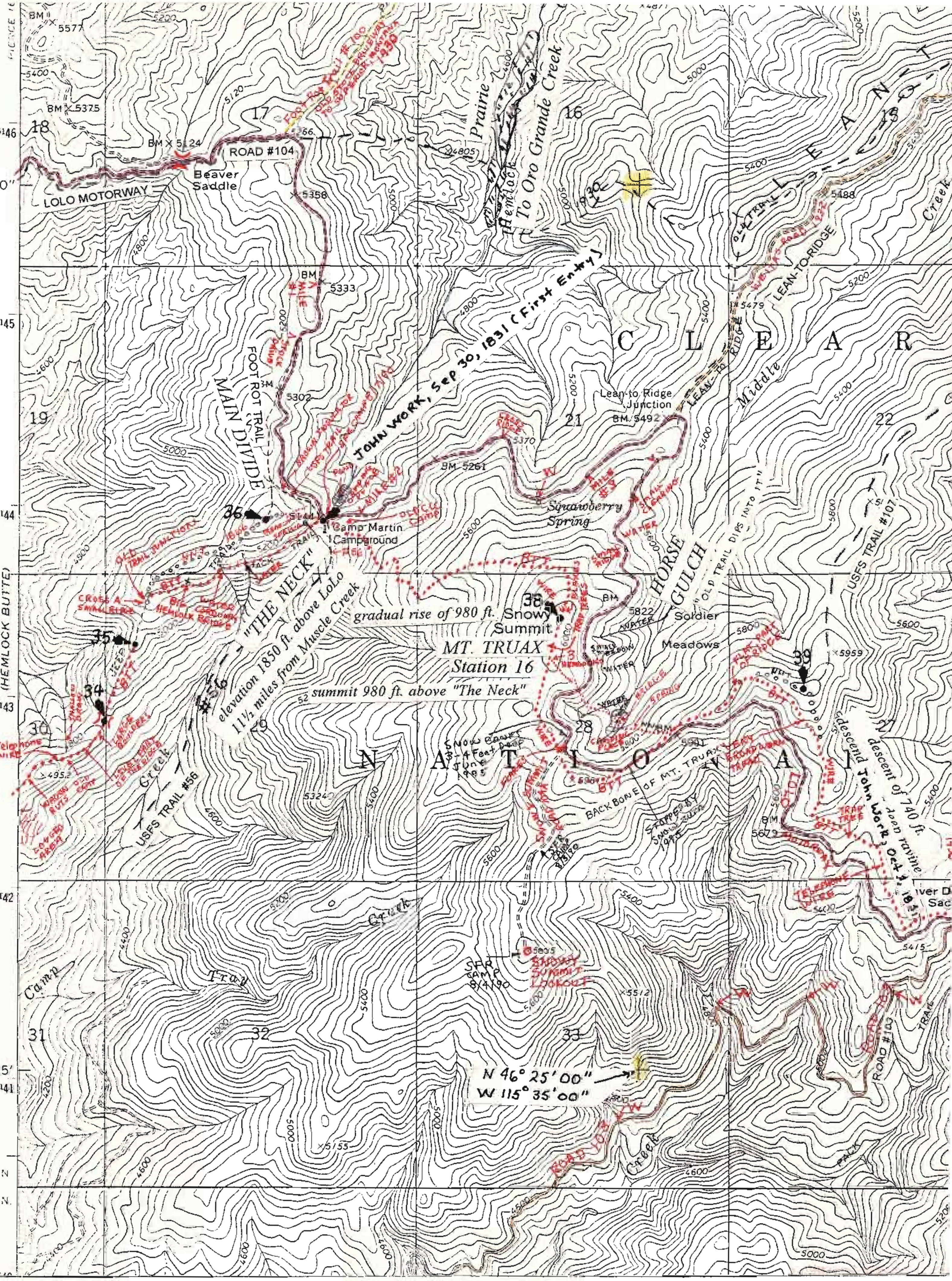
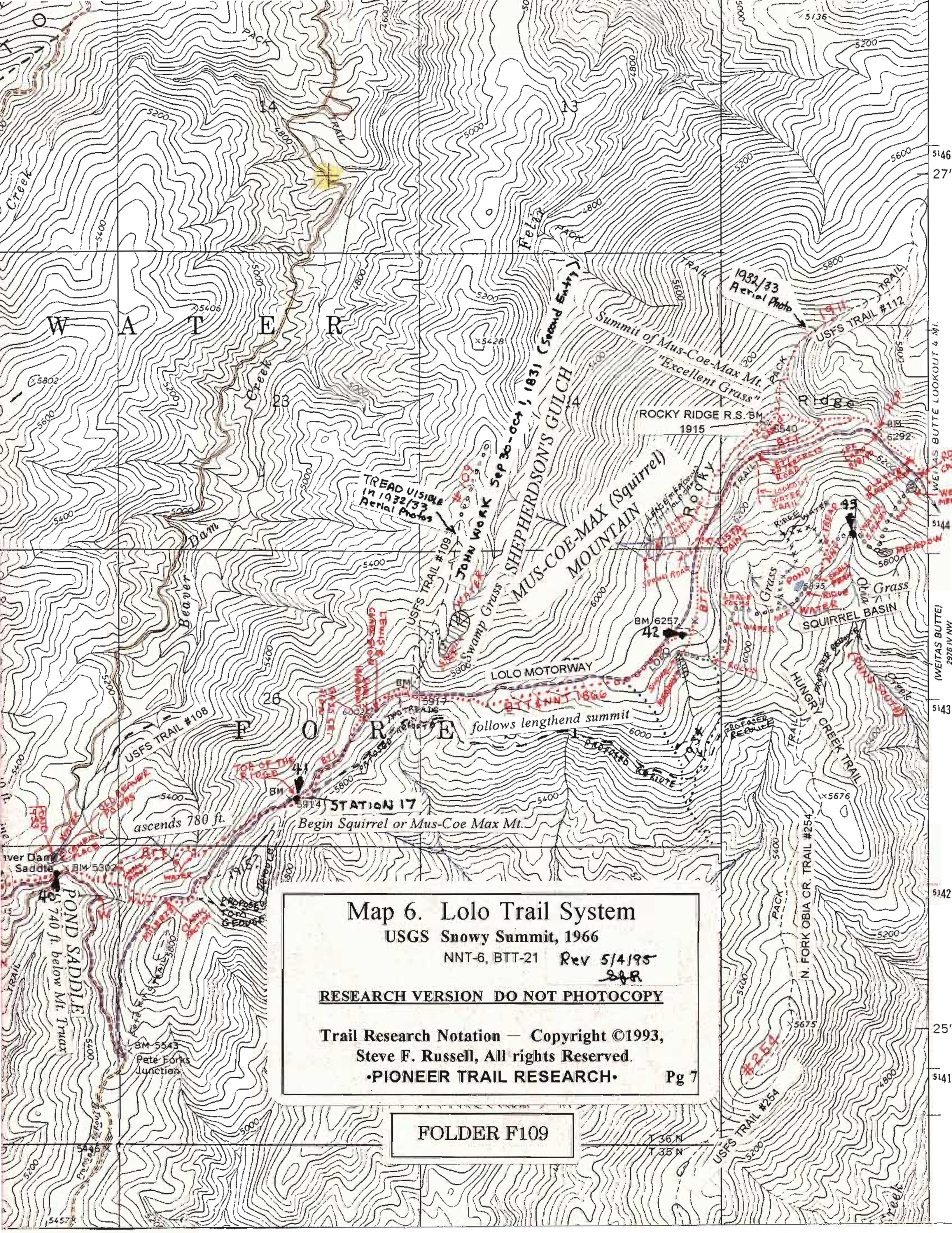
Map 5A Lolo Trail System Details

Steve F. Russell


BM × 5577
5200
5400
BM × 5375
5146
18
27'30"
17
BM × 5124
ROAD #104
LOLO MOTORWAY
Beaver Saddle
× 5358
Foot Rot Trail #100
Prairie
Hemlock
To Oro Grande Creek
16
15
L E A N - T O
5188
LEAN-TO-RIDGE
5479
JOHN WORK, Sep 30, 1831 (First Entry)
BM 5333
5145
FOOT ROT TRAIL
MAIN DIVIDE
BM 5302
19
C L E A R
Lean-to Ridge Junction
BM 5492
21
22
Middle
5370
BM 5261
Squawberry Spring
5144
36
5144
Camp Martin Campground
"THE NECK"
elevation 1850 ft. above LoLo
11½ miles from Muscle Creek
gradual rise of 980 ft.
Snowy Summit
38
BM 5822
HORSE GULCH
"OLD TRAIL DIPS INTO IT"
Soldier Meadows
USFS TRAIL #107
35
MT. TRUAX Station 16
summit 980 ft. above "The Neck"
39
× 5959
34
5143
30
29
#56
28
5991
27
N A T I O N A L
BACK BONE OF MT. TRUAX
descend John Work, Oct 1, 1831
descent of 740 ft.
USFS TRAIL #56
Creek
5324
BM 5679
Beaver Dam Saddle
5142
5415
Creek
Camp
Trail
5835
SNOWY SUMMIT LOOKOUT
× 5512
31
32
33
25'
5141
N 46° 25' 00"
W 115° 35' 00"
ROAD #103
× 5155
T. 36 N
T. 35 N.
2876 I NW (HEMLOCK BUTTE)
Telephone wire
BTT
Creek
Pack



Map 6. Lolo Trail System

USGS Snowy Summit, 1966

NNT-6, BTT-21 Rev 5/4/95 SFR

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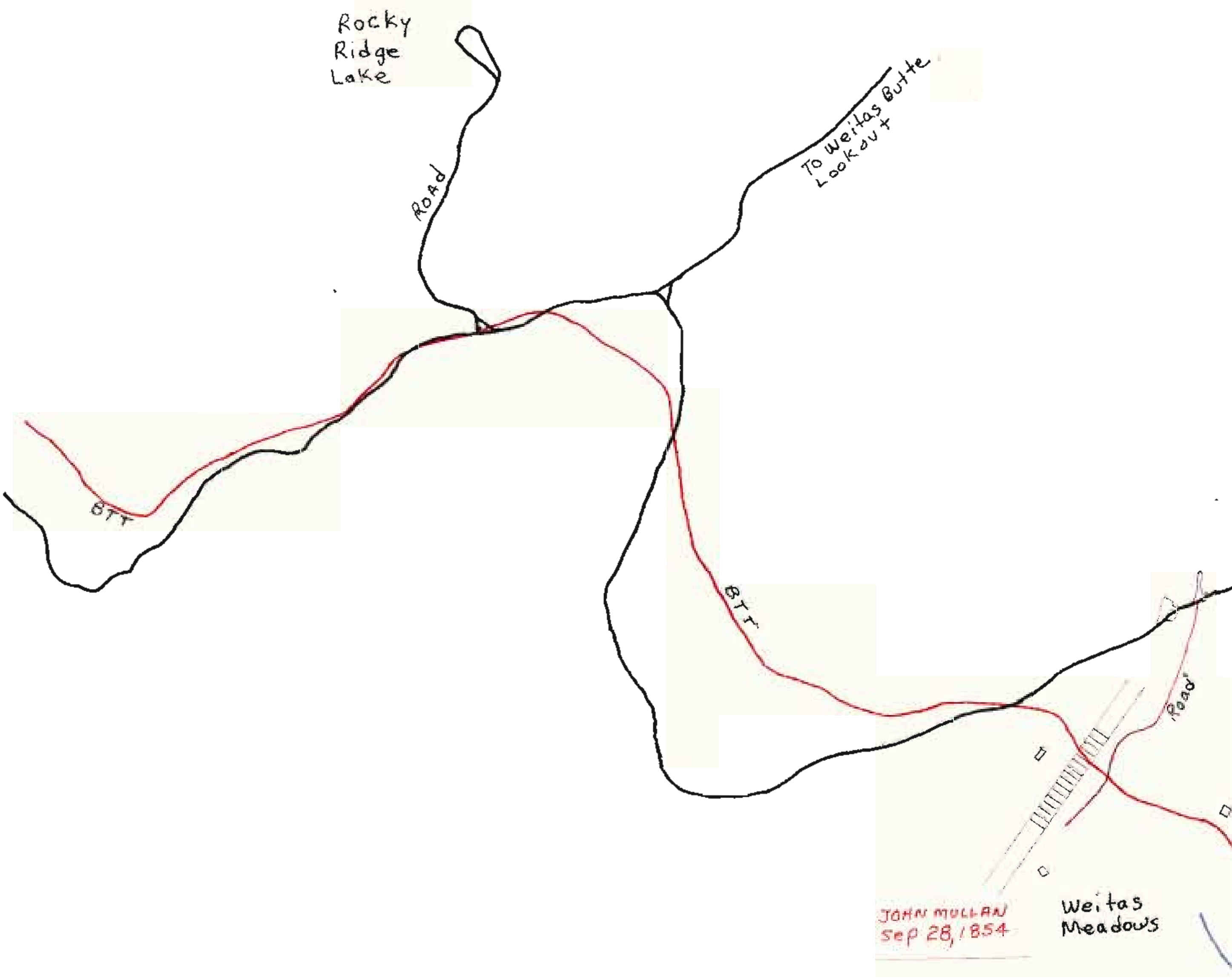


Map 6A Lolo Trail System

Weitas Meadows Area

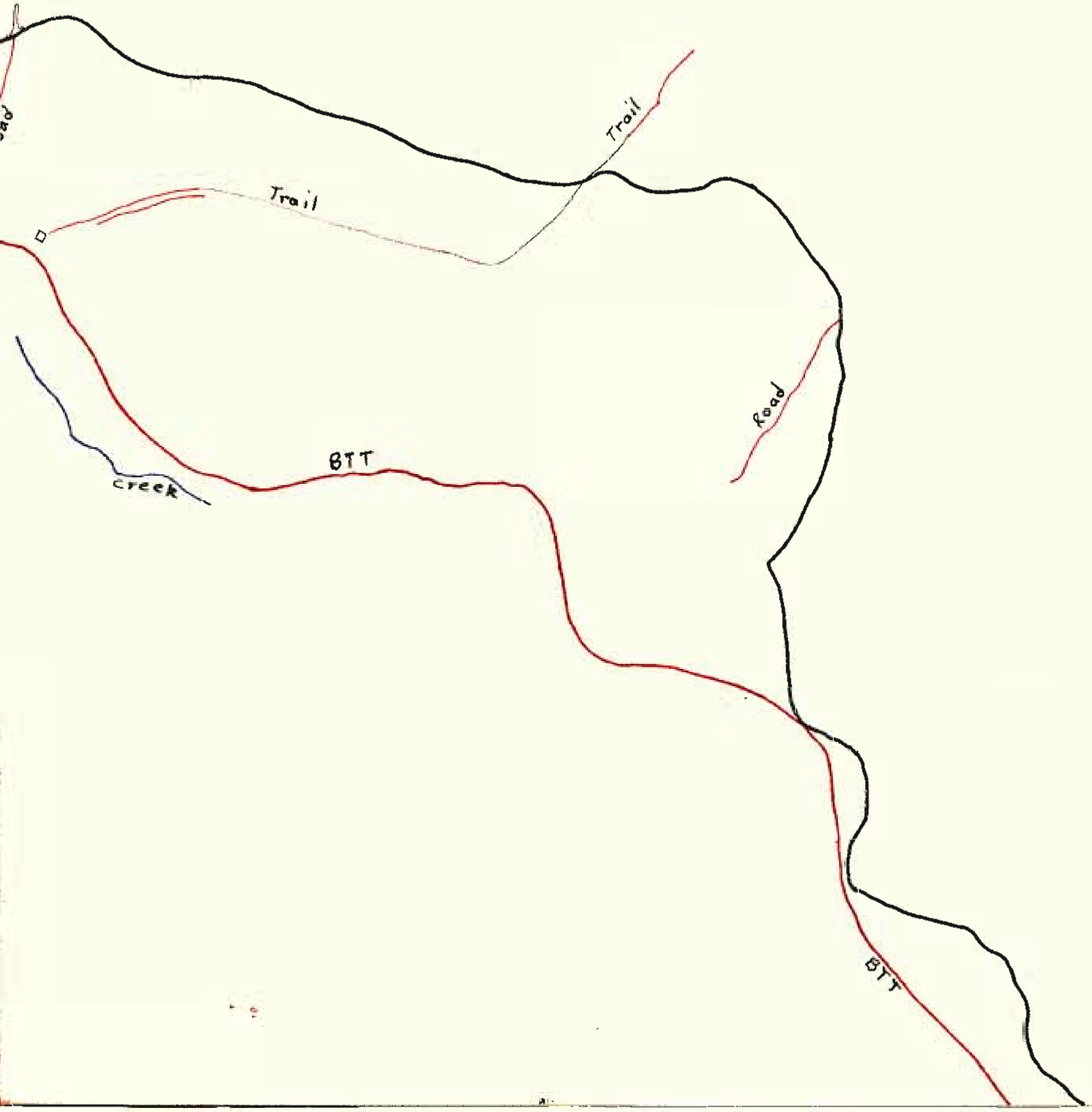
based on 1933 Aerial Photo

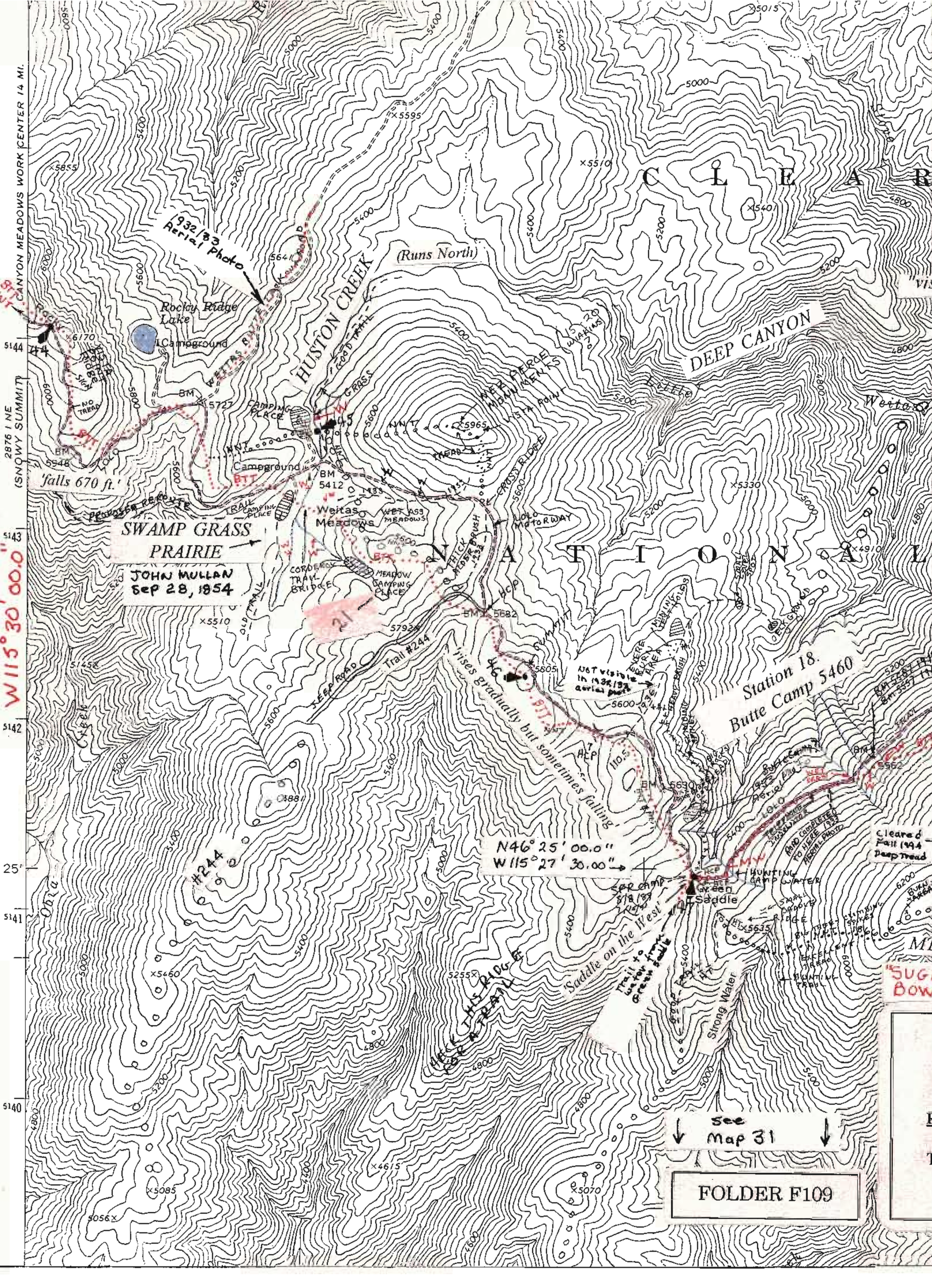
Black = 1933-34 Lolo Motorway

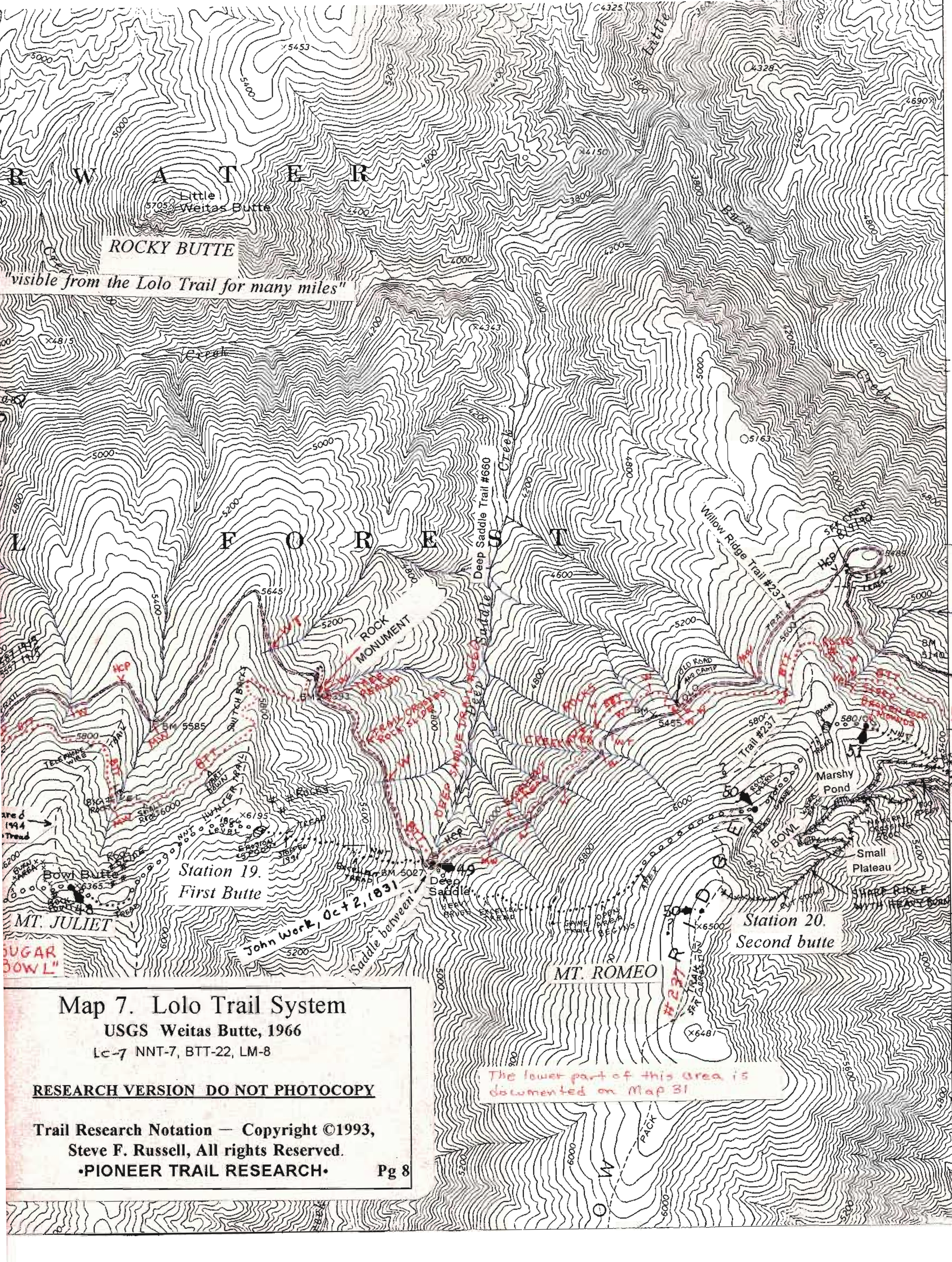
Red = Bird-Truax Trail, 1866

0.1 mi = 0.896 inch

Steve F. Russell 1995


oad
Trail
Trail
Road
BTT
creek
BTT


CANYON MEADOWS WORK CENTER 14 MI.
2876 I NE (SNOWY SUMMIT)
W115°30'00.0"
5144
5143
5142
25'
5141
5140
C L E A R
N A T I O N A L
1932/33 Aerial Photo
Rocky Ridge Lake
Campground
HUSTON CREEK
(Runs North)
DEEP CANYON
NEZ PERCE MONUMENTS
VISTA POINT
CROSSY RIDGE
LOLO MOTORWAY
GOOD TRAIL
GRASS
CAMPING PLACE
45
44
6170
BM 5727
BM 5946
'falls 670 ft.'
Campground
BM 5412
Weitas Meadows
WET GRASS MEADOWS
SWAMP GRASS PRAIRIE
JOHN MULLAN Sep 28, 1954
CORDEROY TRAIL BRIDGE
MEADOW CAMPING PLACE
OLD TRAIL
21
5792
JEEP ROAD
Trail #244
THICK ALDER BRUSH
BM 5682
46
5805
SUMMIT
'rises gradually but sometimes falling'
NOT visible in 1932/33 aerial photo
Station 18. Butte Camp 5460
BM 5630
N46°25'00.0"
W115°27'30.00"
Green Saddle
HUNTING CAMP WATER
'Saddle on the West'
Trail to Camp below Green Saddle
Strong Water
#244
CHECK THIS RIDGE FOR A TRAIL
Cleared Fall 1994 Deep Tread
"SUG BOW
See Map 31
FOLDER F109
5595
5510
5540
5965
5330
4910
5510
5881
5460
5255
4615
5085
5070
5056
5635
5015
5641
5855
Ohara Creek
Weitas



The lower part of this area is documented on Map 31

Map 7. Lolo Trail System

USGS Weitas Butte, 1966

Lc-7 NNT-7, BTT-22, LM-8

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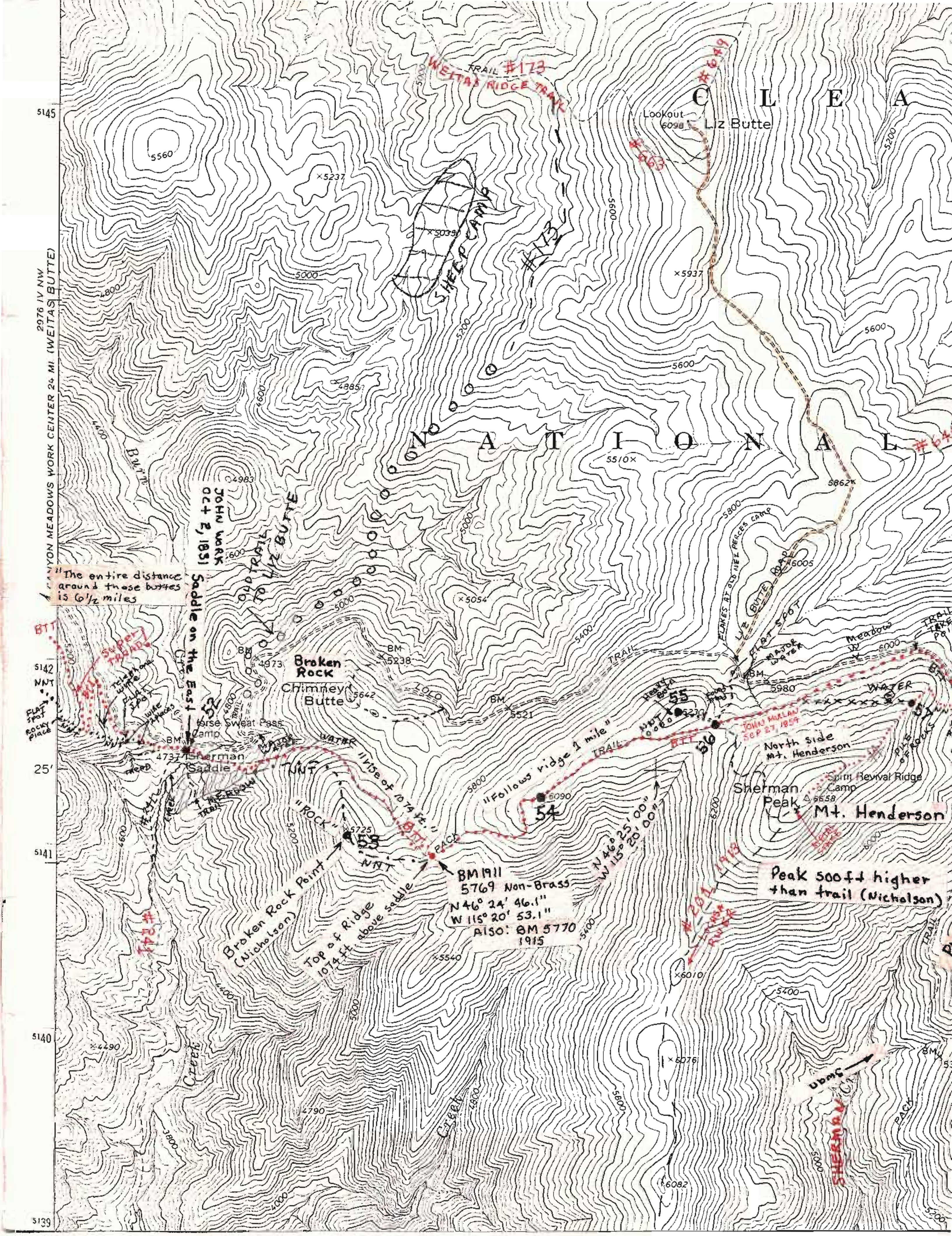
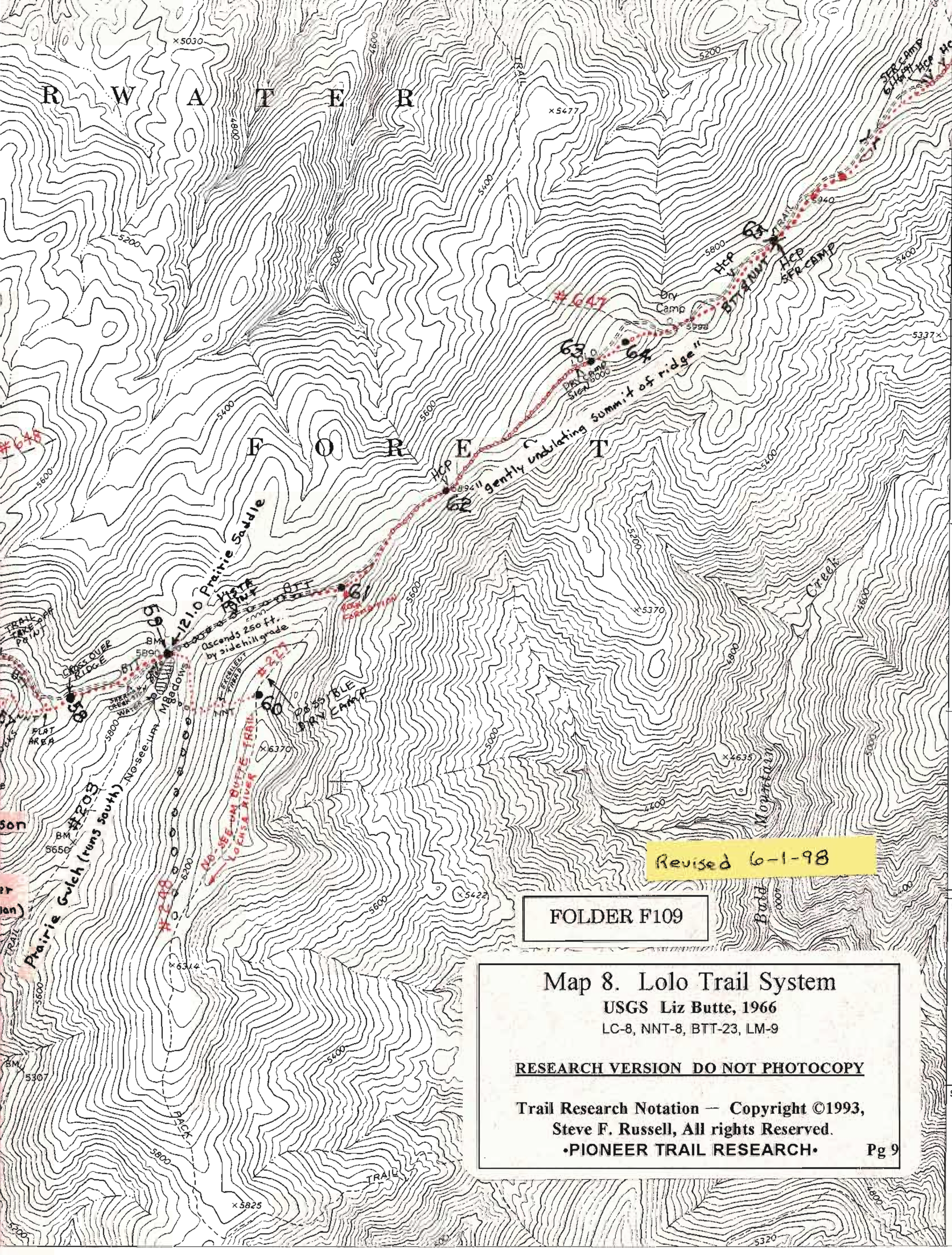

TRAIL #173
WEITAS RIDGE TRAIL
#649
C L E A
Lookout
6098
Liz Butte
#263
5560
×5237
×5039
SHEEP CAMP
#173
×5937
2976 IV NW
CANYON MEADOWS WORK CENTER 24 MI. (WEITAS BUTTE)
5145
4885
N A T I O N A L
#64
5510×
5862×
4983
JOHN WORK Oct 2, 1831
OLD TRAIL TO LIZ BUTTE
FLAKES AT OLD NEZ PERCES CAMP
6005
LIZ BUTTE ROAD
FLAT SPOT
×5054
"The entire distance around those buttes is 6½ miles
Saddle on the East
BTT
Super Tread
BTT
Telephone wire
FLAT SPOT
WIDE 2 PLACES
5142
NNT
FLAT spot
ROCKY PLACE
BM
4973
Broken Rock
Chimney Butte
5642
BM 5238
LOLO
BM 5521
TRAIL
Meadow
MAJOR WATER
BM
5980
Heavy Bush
55
6230
NUT
Good Tread
52
Horse Sweat Pass Camp
TRAIL
MAJOR WATER
WATER
BM
4737
Sherman Saddle
TREAD
25′
#241
CREEK
NARROW TRAIL
NNT
"rise of 1074 ft."
BTT
"Follows ridge 1 mile"
6090
54
56
JOHN MULLAN SEP 27, 1854
WATER
57
North side Mt. Henderson
PILE OF ROCKS
Spirit Revival Ridge Camp
Sherman Peak
6658
Mt. Henderson
"ROCK"
5725
53
PACE
NNT
BM 1911
5769 Non-Brass
N 46° 24′ 46.1″
W 115° 20′ 53.1″
Also: BM 5770 1915
N 46° 25′ 00″
W 115° 20′ 00″
5141
Broken Rock Point (Nicholson)
Top of Ridge 1074 ft. above saddle
#201
1913
Peak 500 ft higher than trail (Nicholson)
#241
×5540
×6010
5140
×4490
Creek
Creek
×6076
×4790
UBMC
SHERMAN
PACK
×6082
5139



Revised 6-1-98

FOLDER F109

Map 8. Lolo Trail System

USGS Liz Butte, 1966

LC-8, NNT-8, BTT-23, LM-9

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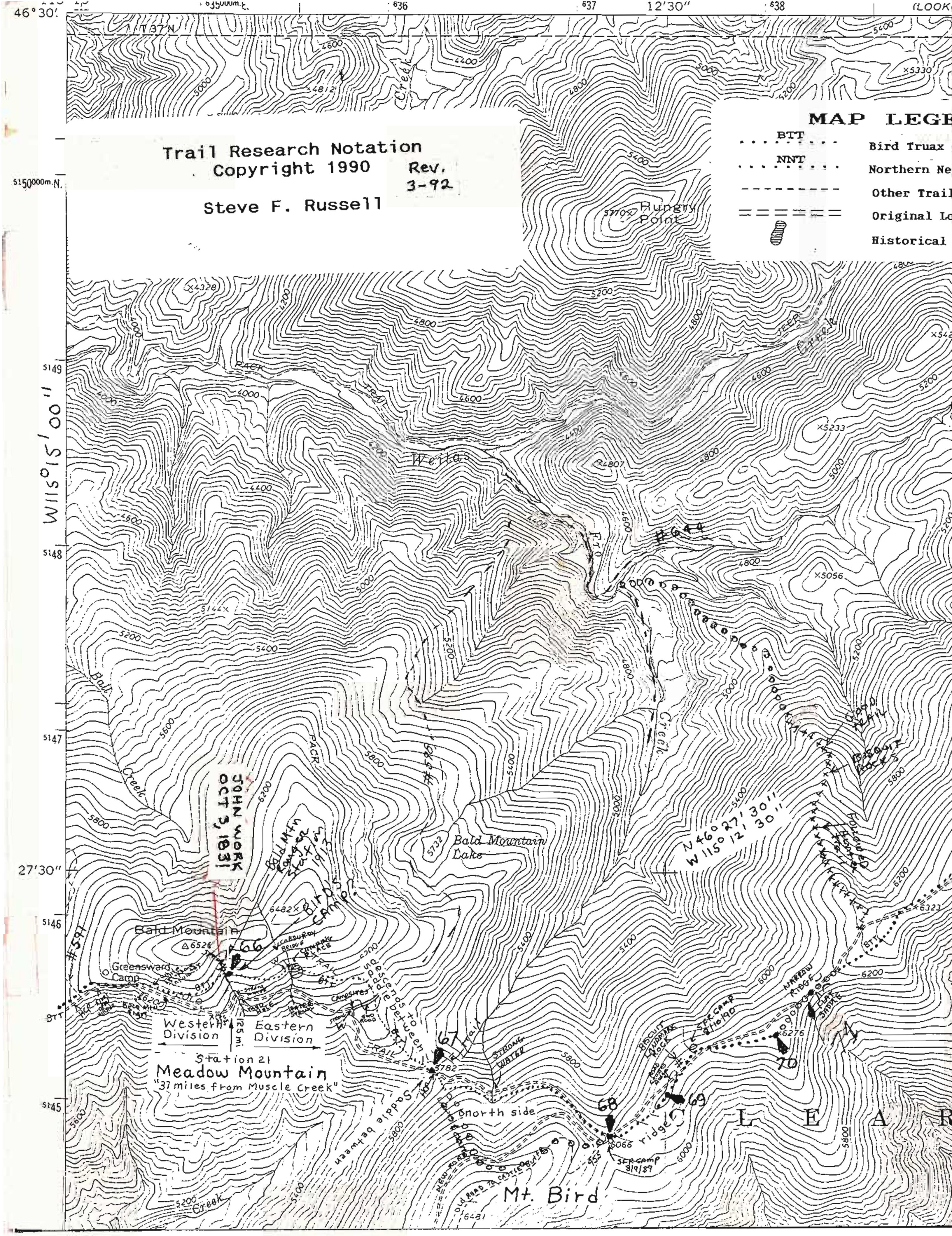

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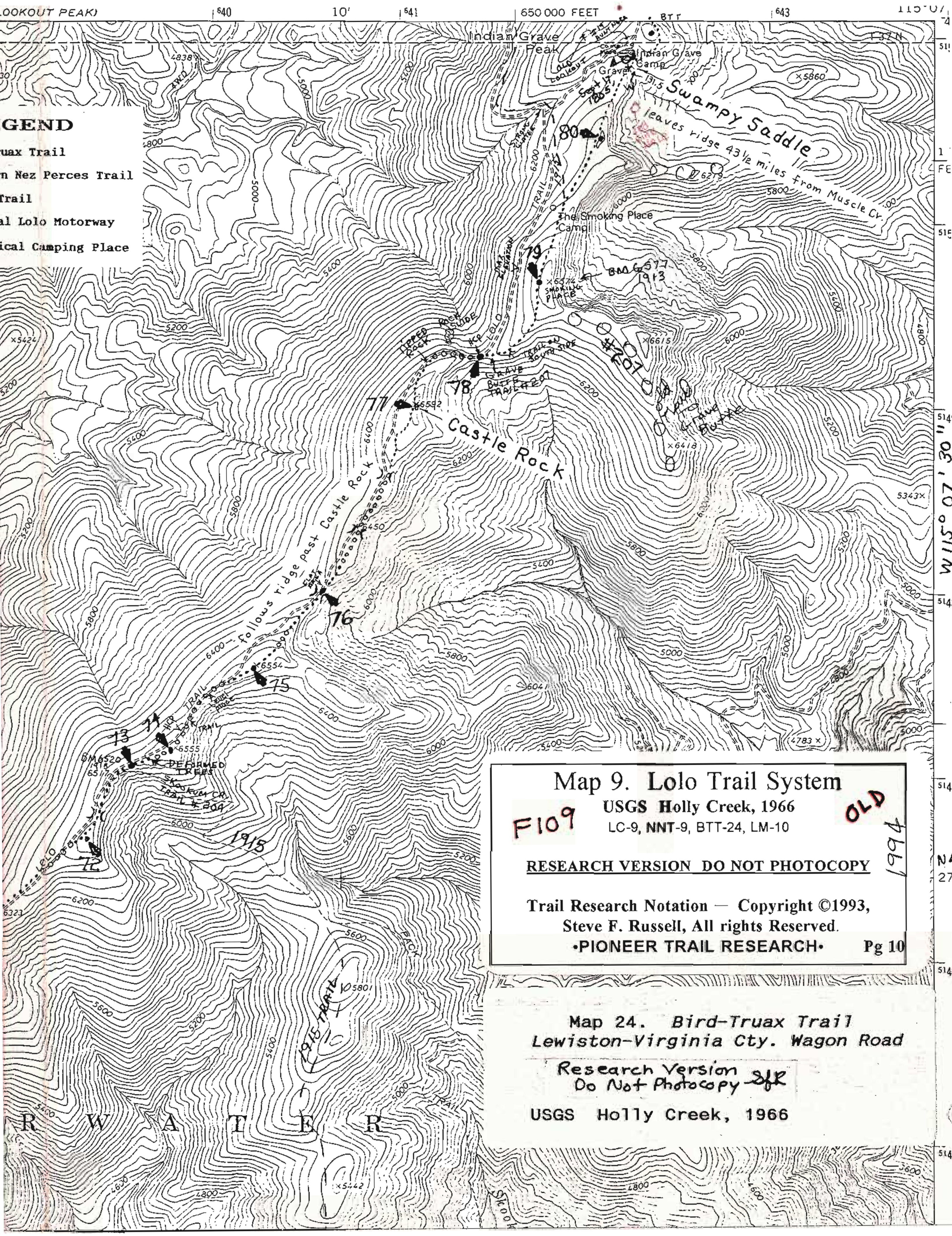
MAP LEGE

BTT Bird Truax
NNT Northern Ne
Other Trail
Original Lo
Historical



Map 9. Lolo Trail System

USGS Holly Creek, 1966

LC-9, NNT-9, BTT-24, LM-10

F109

OLD

1994

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Map 24. *Bird-Truax Trail*
Lewiston-Virginia Cty. Wagon Road

Research Version
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USGS Holly Creek, 1966

FOLDER F109

Map 10. Lolo Trail System

USGS Lookout Peak, 1965

LC-10, NNT-10, BTT-25, LM-11

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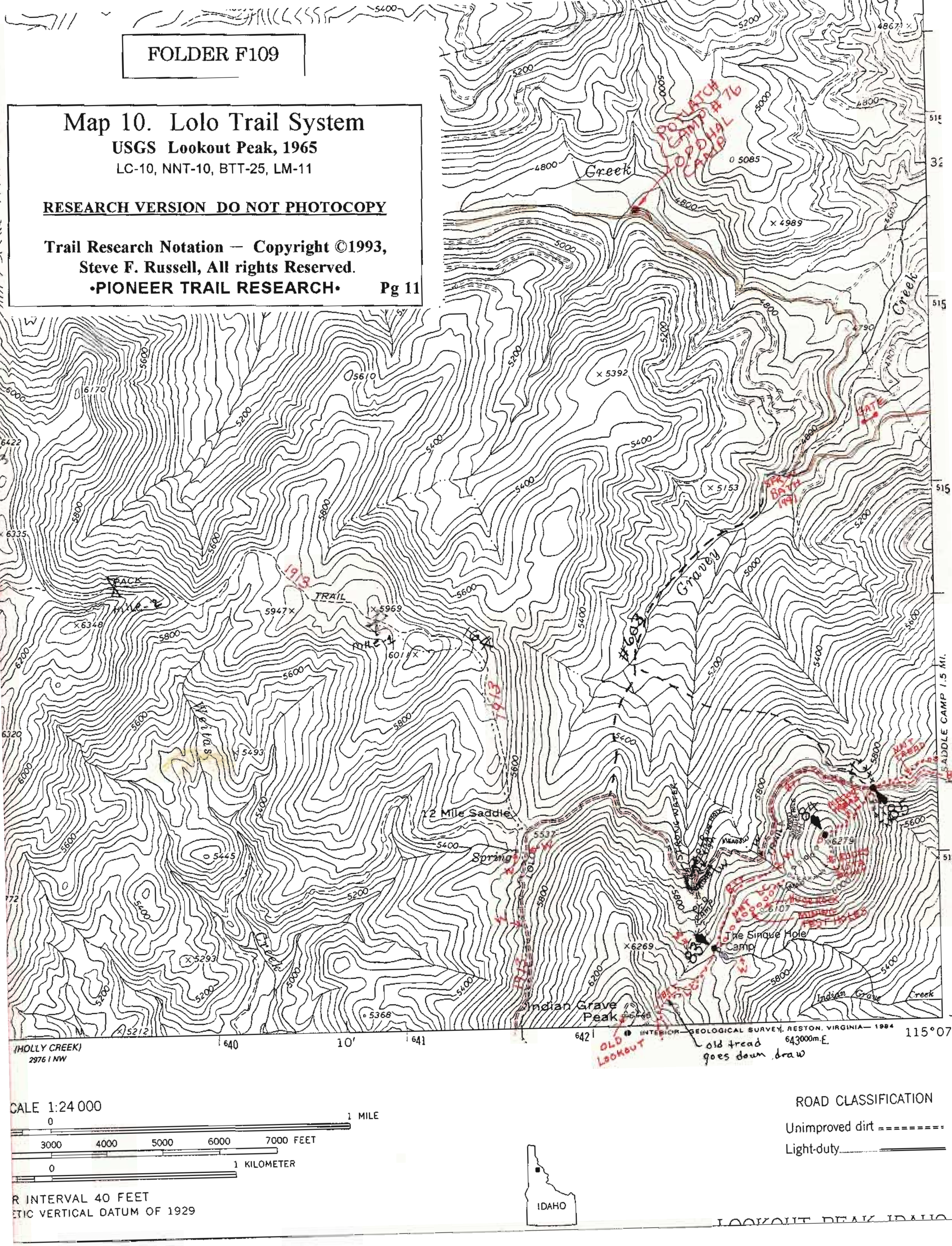
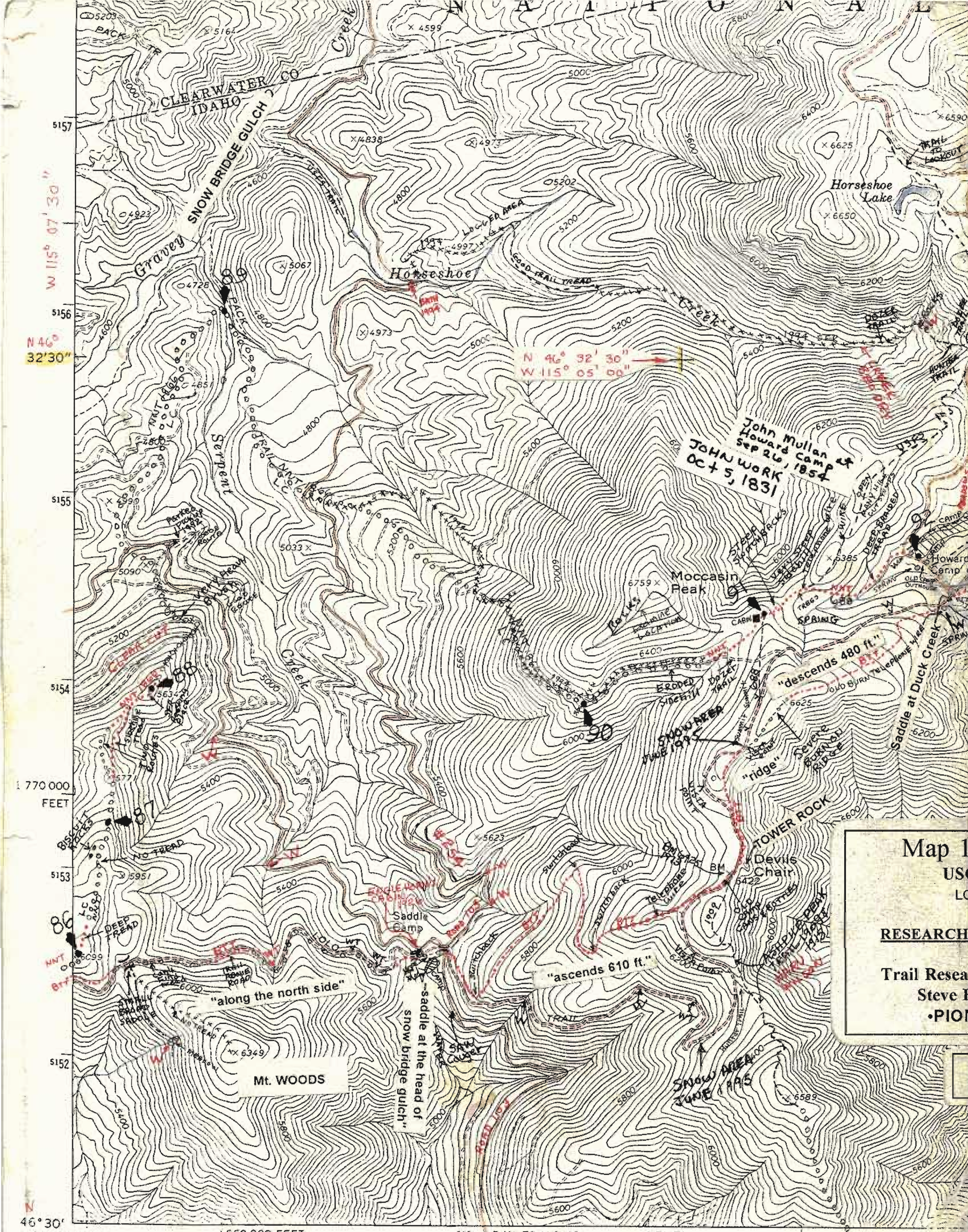
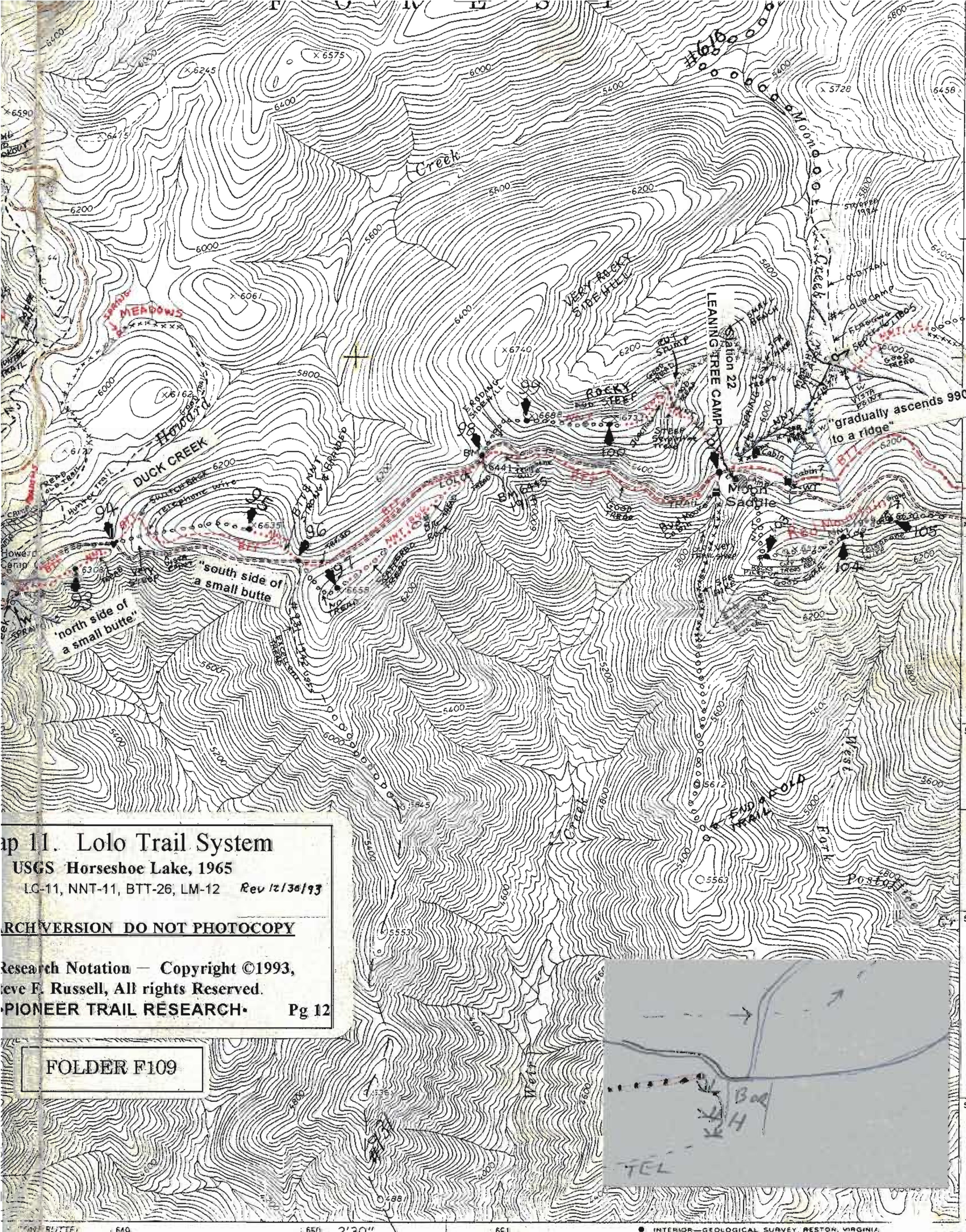



NATIONAL
PACK TR
CLEARWATER CO
IDAHO
Creek
SNOW BRIDGE GULCH
Gravey
W 115° 07' 30"
N 46°
32'30"
89
PACK
Serpent
TRAIL NNT LC
NNT LC
LOGGED AREA
Horseshoe
BURN 1994
GOOD TRAIL TREAD
Creek
N 46° 32' 30"
W 115° 05' 00"
Horseshoe Lake
TRAIL TO LOOKOUT
DOZER TRAIL
HUNTER TRAIL
John Mullan at Howard Camp Sep 26, 1854
JOHN WORK Oct 5, 1831
STEEP SWITCHBACKS
VERY STEEP SIDEHILL
TELEPHONE WIRE
WIRE
OPEN MANY HILLS CUT STUMPS
DEEP BRAIDED TREAD
CAMP
Howard Camp
OLD CABIN OUTHOUSE
SPRING
TREES
Moccasin Peak
91
CABIN
ROCKS
PROMINE LOCATION
Parked Pickup 1992
Jerry Heavy Brush
CLEAR CUT
NNT BRT
88
SIDEHILL TREAD
TWO ROUTES
87
BISCUIT ROCKS
NO TREAD
86
DEEP TREAD
NNT
BRT
ERODED SIDEHILL
DOZER TRAIL
90
SNOW AREA JUNE 1995
"descends 480 ft."
OLD BURN TELEPHONE WIRE
Severe BURNED RIDGE
Saddle at Duck Creek
"ridge"
VISTA POINT
TOWER ROCK
Devils Chair
BM 6422
switchback
Telephone wire
"ascends 610 ft."
SADDLE CAMP CABIN 1964
Saddle Camp
LOLO
"along the north side"
"saddle at the head of snow bridge gulch"
SAW COUGAR
Mt. WOODS
TRAIL
ROAD 1012
SNOW AREA JUNE 1995
5157
5156
5155
5154
5153
5152
1 770 000 FEET
46°30'
115°07'30"
1 660 000 FEET
646
7 MI. TO U.S. 12
647
5'
648
Map 1
USG
LO
RESEARCH
Trail Resea
Steve
•PION



ap 11. Lolo Trail System

USGS Horseshoe Lake, 1965

LC-11, NNT-11, BTT-26, LM-12 Rev 12/30/93

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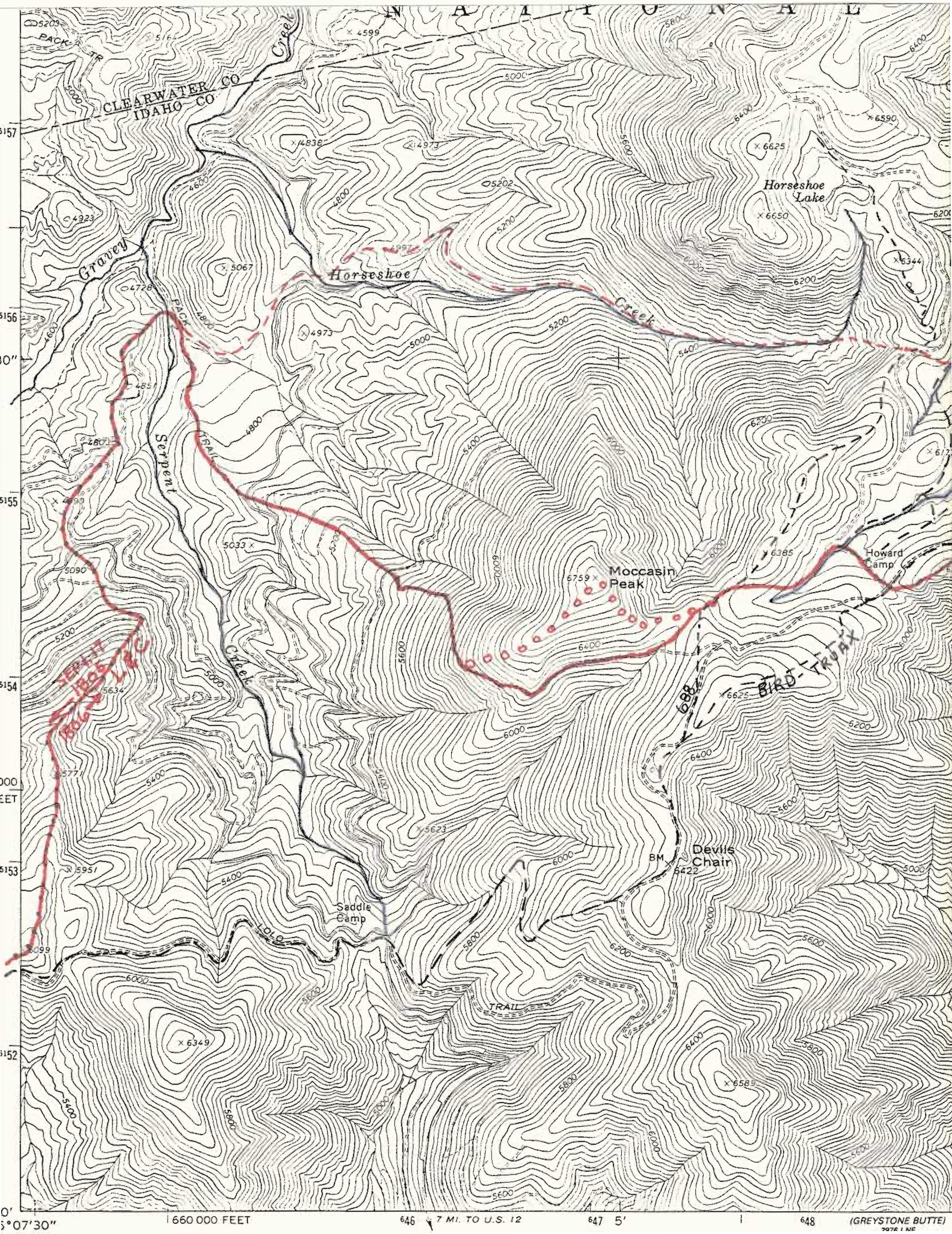
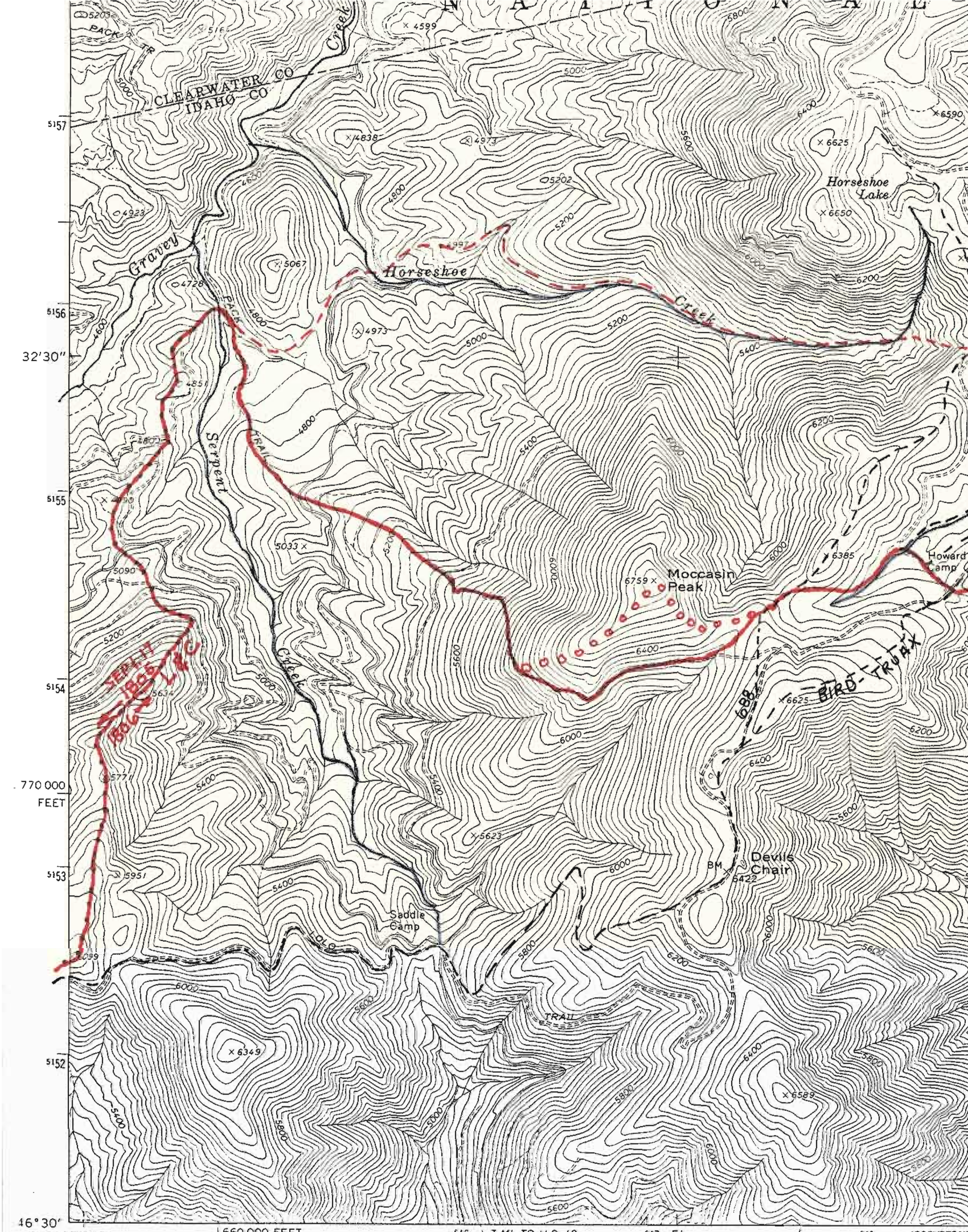
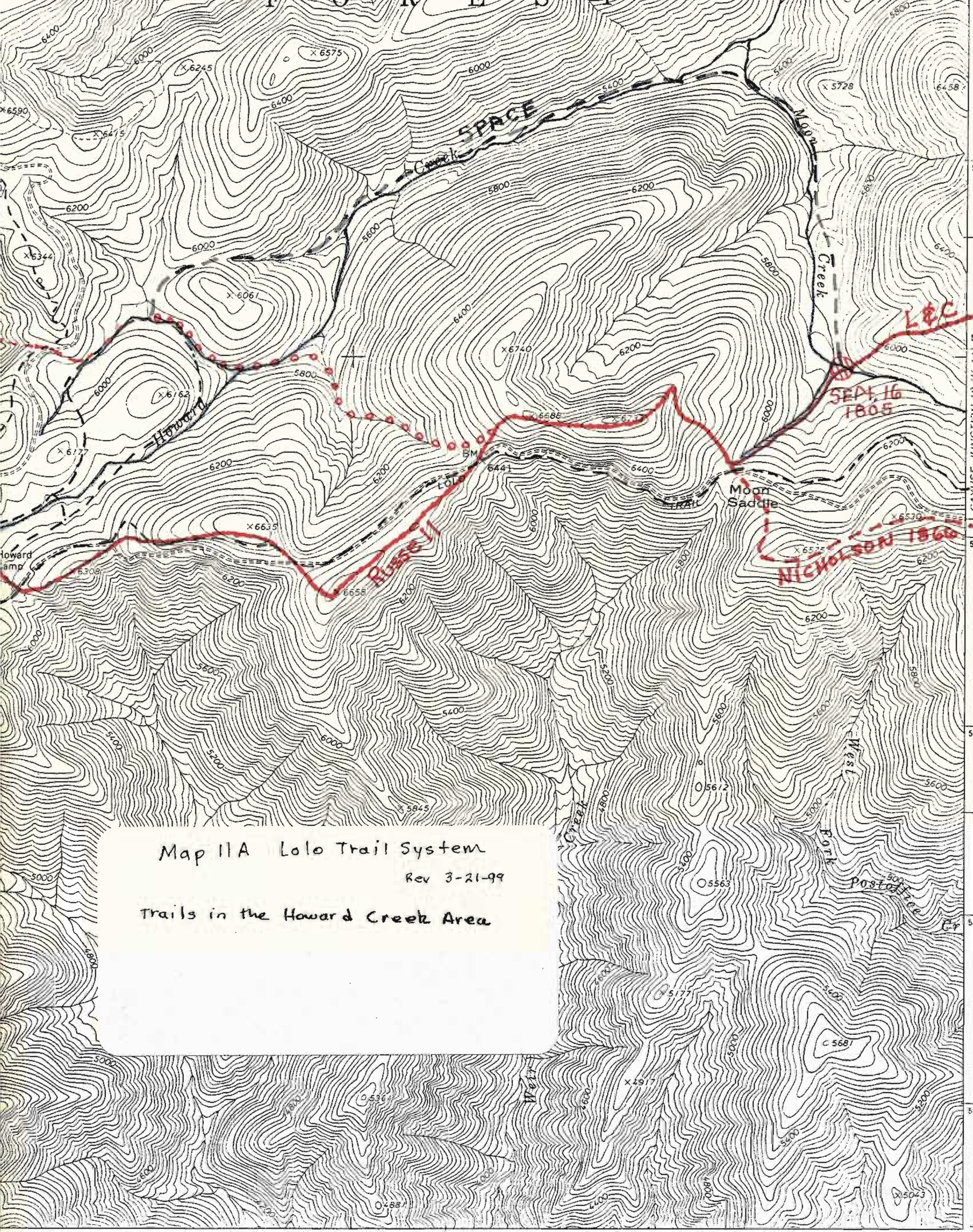
FOLDER F109
]


N A T I O N A L
CLEARWATER CO
IDAHO CO
PACK TR
Creek
Gravey
Horseshoe
Creek
Horseshoe Lake
Serpent
Creek
PACK
TRAIL
Moccasin Peak
6759
Howard Camp
BIRD-TRUAX
688
Devils Chair
BM 6422
Saddle Camp
LOLO
TRAIL
SEPT 17
1805 L&C
1806
5203
4599
4838
4973
5202
4923
5067
4728
4997
4973
4851
4807
4890
5033
5090
5634
5577
5623
5951
5099
6349
6585
6625
6590
6625
6650
6344
6385
5000
5200
5400
5600
5800
6000
6200
6400
4600
4800
5157
5156
30″
5155
5154
000 FEET
5153
5152
0′
5°07′30″
660 000 FEET
646
7 MI. TO U.S. 12
647
5′
648
(GREYSTONE BUTTE)
2976 I NE

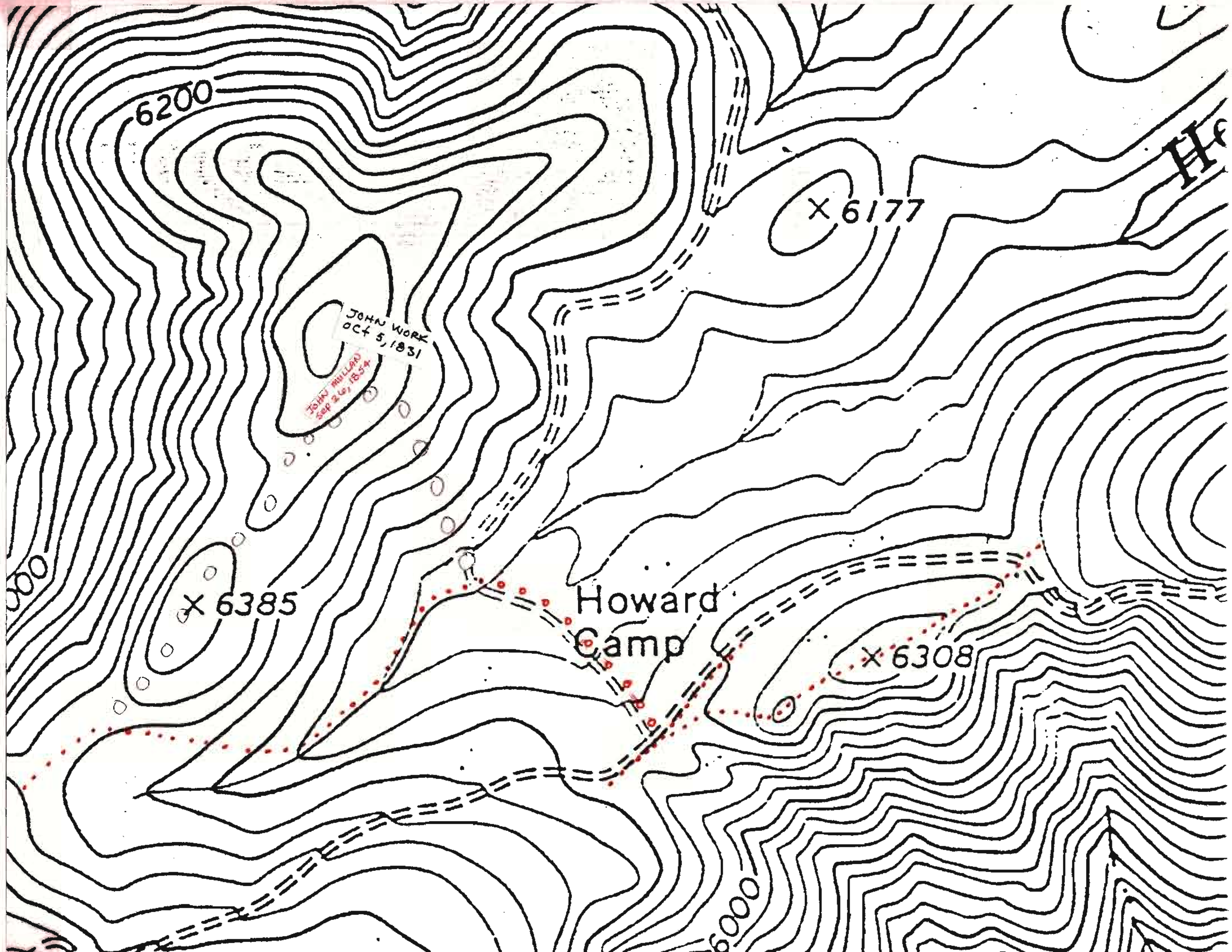

N A T I O N A L
PACK TR
CLEARWATER CO
IDAHO CO
Creek
Gravey
Horseshoe
Creek
Horseshoe Lake
Serpent
Creek
PACK
TRAIL
Moccasin Peak
6759
Howard Camp
BIRD-TRUAX
688
Devils Chair
BM 6422
Saddle Camp
LOLO
TRAIL
SEP. 17
1806
1806 L&C
4599
5203
5800
6590
6625
6650
4838
4973
5202
4923
4997
5067
4728
4973
4851
5200
5400
6200
5033
5090
6385
6400
6625
5634
5771
5623
5951
6099
6349
6589
6000
5600
5000
4800
4600
5157
5156
32'30"
5155
5154
770 000 FEET
5153
5152
46°30'
115°07'30"
660 000 FEET
646
7 MI. TO U.S. 12
647 5'
648
(GREYSTONE
2976 I I

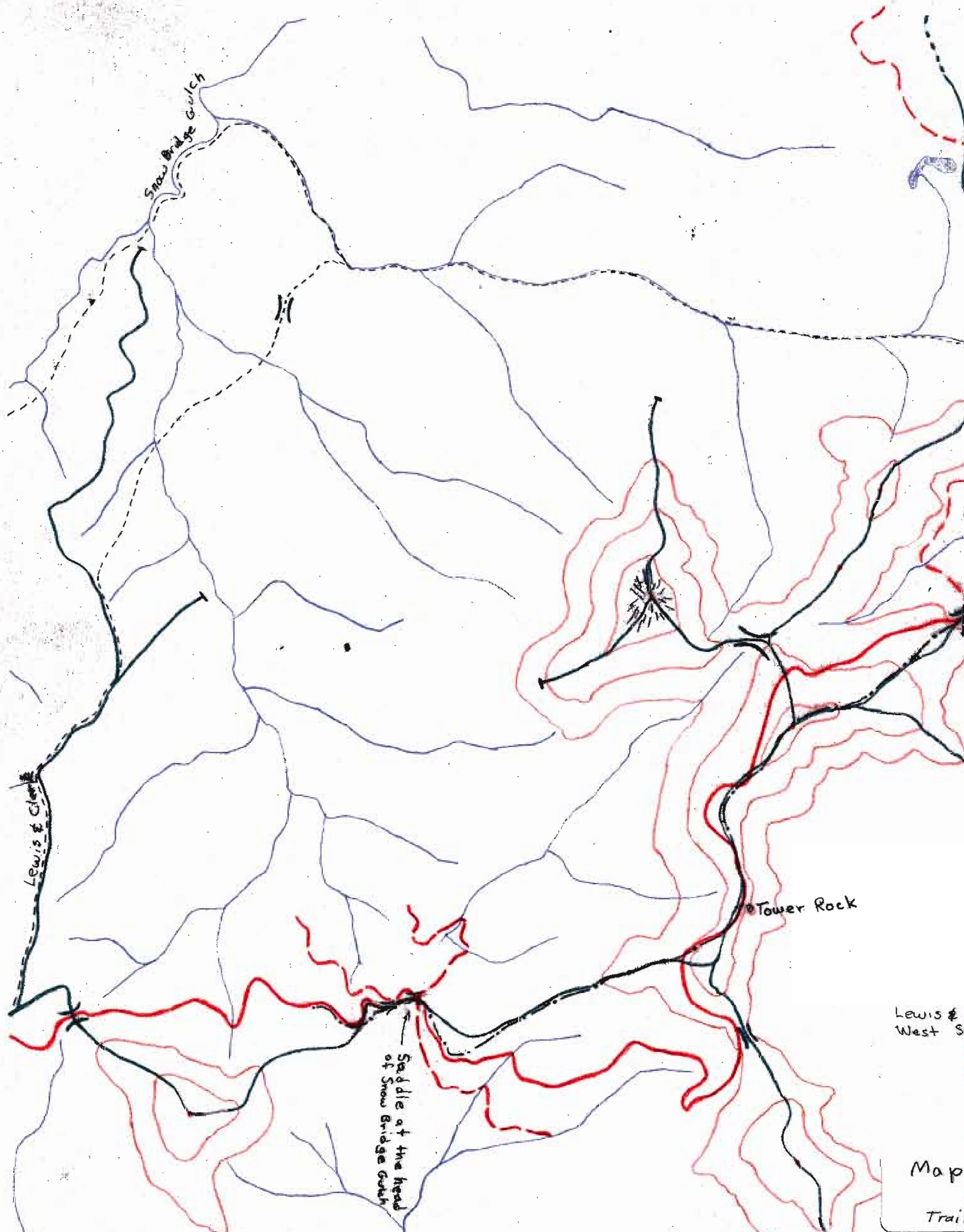


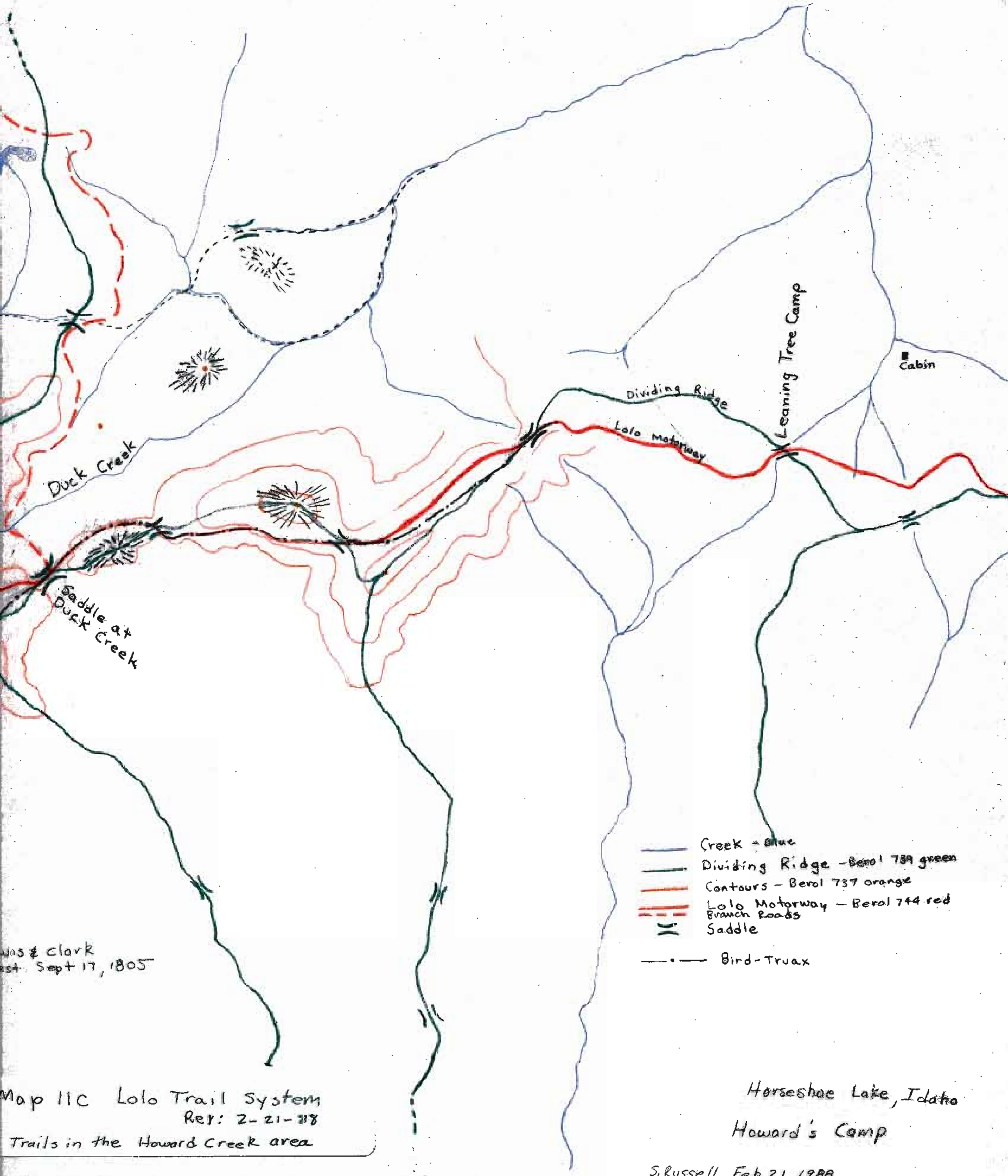
Map 11A Lolo Trail System

Rev 3-21-99

Trails in the Howard Creek Area

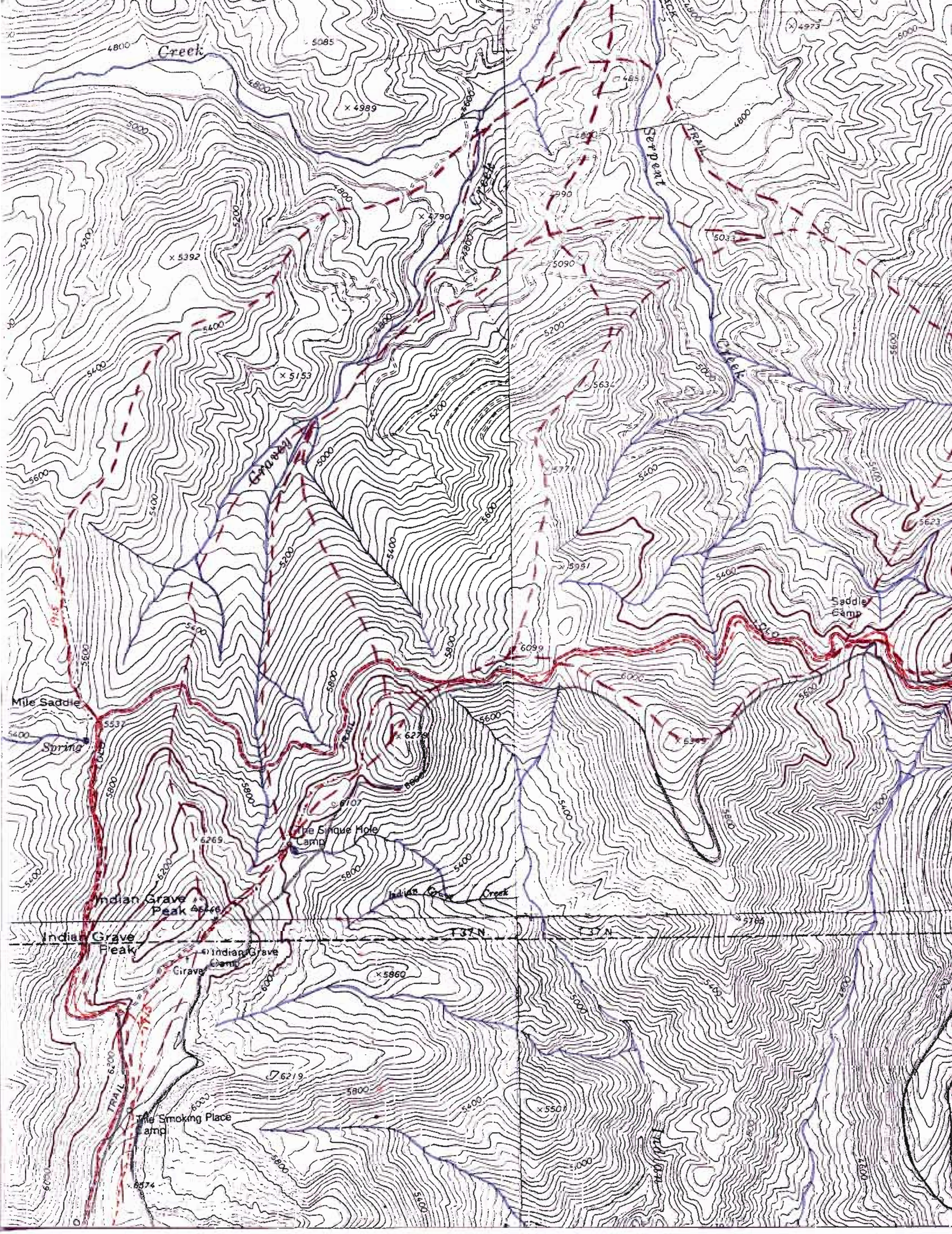

6200
Ho
6177
JOHN WORK
OCT 5, 1831
JOHN MULLAN
SEP 26, 1854
000
6385
Howard
Camp
6308
6000

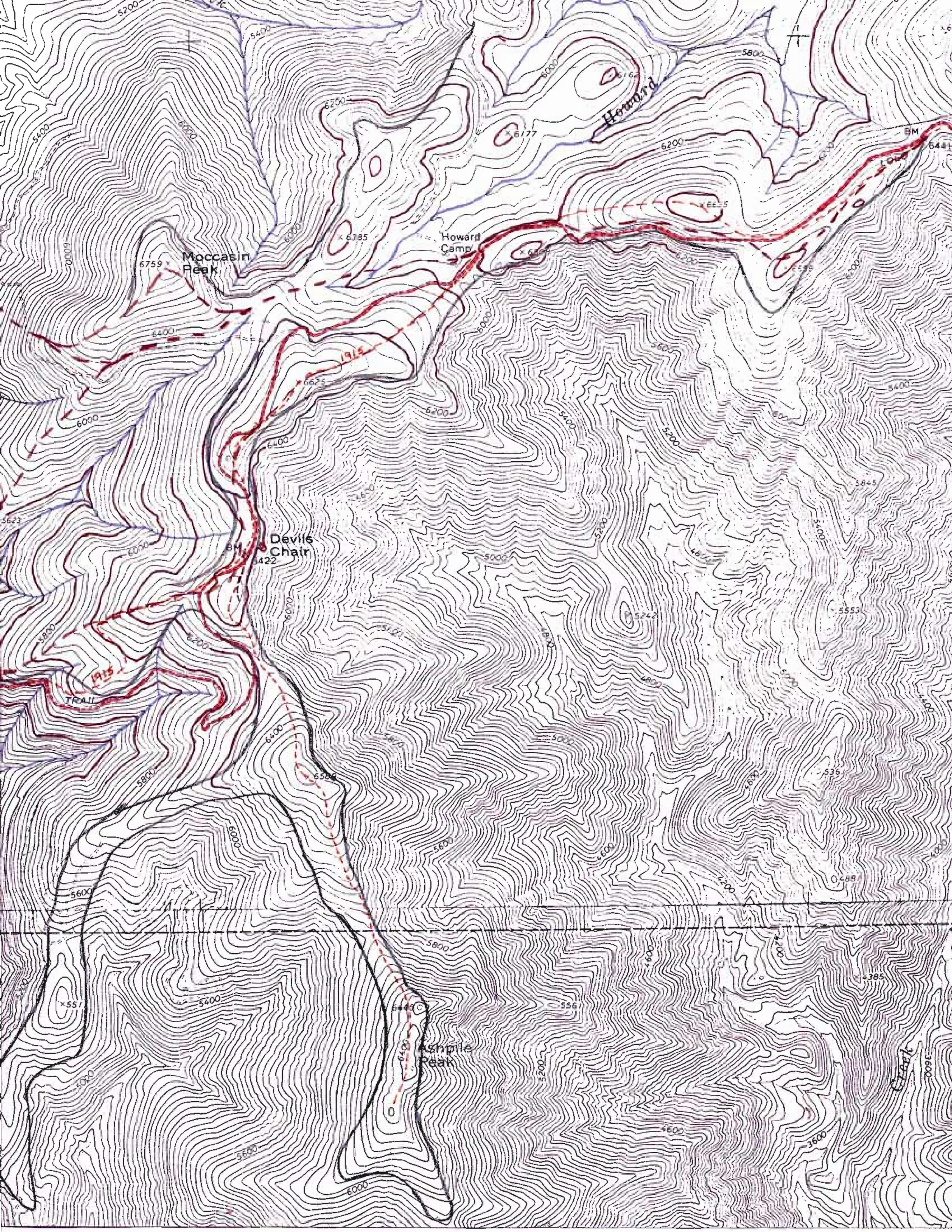

Snow Bridge Gulch
Lewis & Clark
Tower Rock
Saddle at the head of Snow Bridge Gulch
Lewis &
West S
Map
Trai

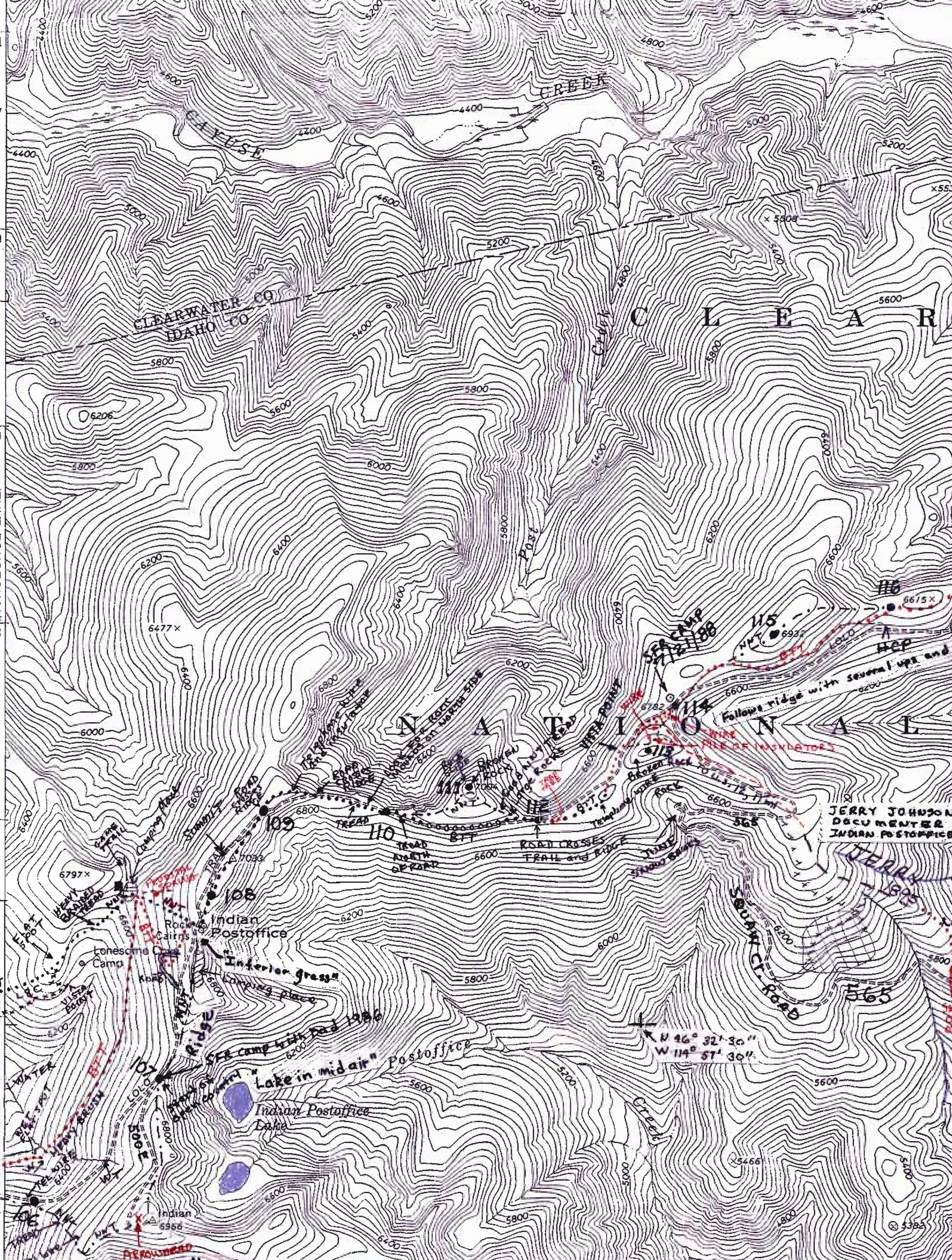


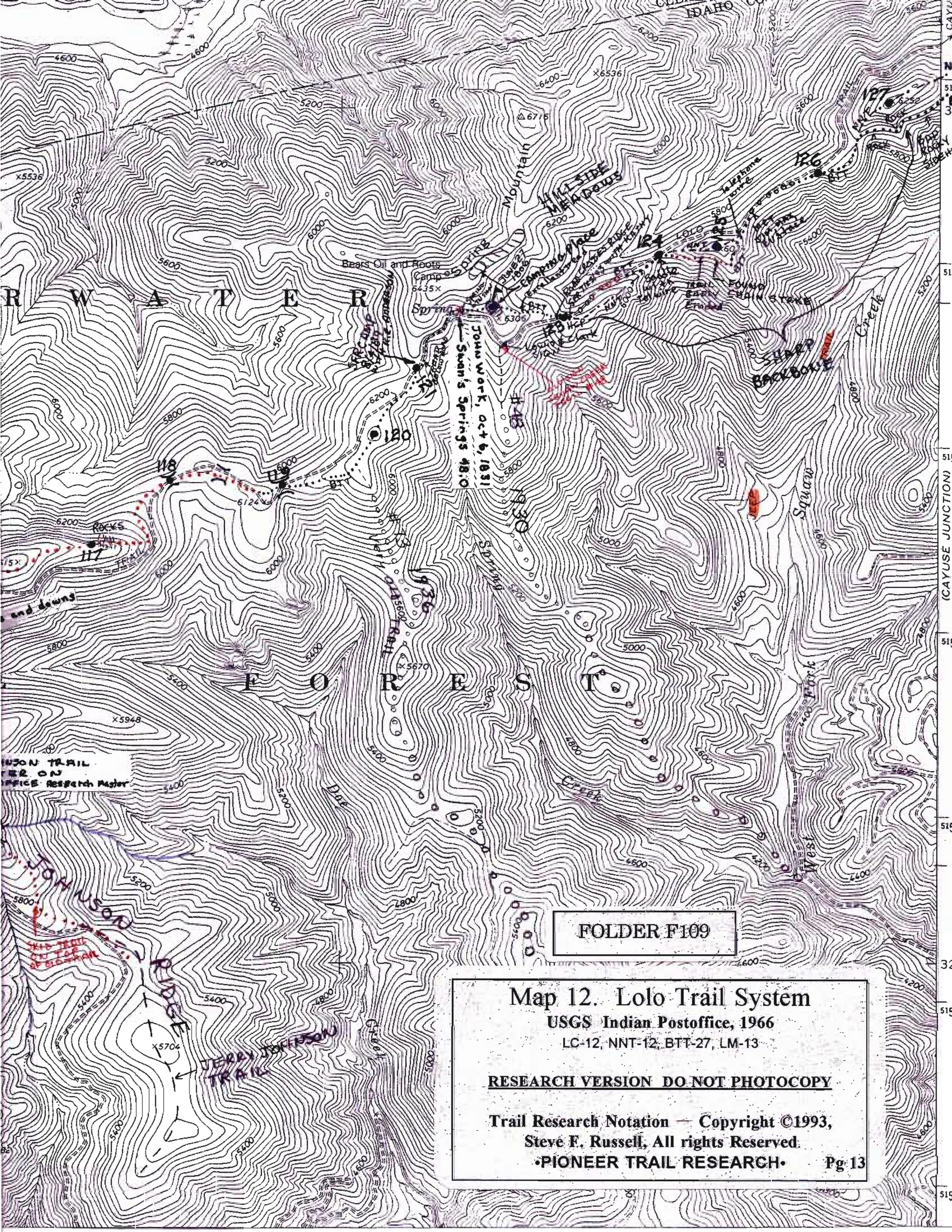
Map 11C Lolo Trail System
Rev: 2-21-88
Trails in the Howard Creek area

S. Russell Feb 21, 1988


Creek
4800
5085
4989
4973
4859
5000
4800
TRAIL
Serpent
Creek
5200
5392
4790
Creek
4990
5033
5090
5400
5153
5634
Gravey
5771
5623
5051
Saddle
Camp
6099
6000
Mile Saddle
5532
Spring
TRAIL
6279
5349
6107
The Sinque Hole
Camp
6269
Indian Grave Creek
Indian Grave
Peak
T 37 N.
T 37 N
5766
Indian Grave
Peak
Indian Grave
Camp
Grave
5860
TRAIL
6219
The Smoking Place
Camp
5501
Indian
6574


Moccasin Peak
6759
Howard Camp
Howard
6177
6785
6625
1915
TRAIL
Devils Chair
BM
6422
6588
Ashpile Peak
6449
5242
5845
5553
5623
Creek
BM
6000
6200
6400
5800
5600
5400
5200
5000
4800
4600
4200
3600


CAYUSE CREEK
Post Creek
CLEARWATER CO
IDAHO CO
CLEAR
NATIONAL
2977 II SE (HORSESHOE LAKE)
5161
35′
5160
5159
5158
5157
5156
32′30″
5155
6206
6477
6797
7033
7004
6782
6932
6675
5508
5466
5383
6966
Indian
Indian Postoffice
Rock Cairns
Lonesome Cove Camp
Indian Postoffice Lake
Postoffice
LOLO
HOWARD CAMP 3.5 MI.
106
107
108
109
110
111
112
113
114
115
116
565
500E
NNT
BTT
Game Trail
Camping Place
Summit
Trail
Road crosses ridge
Telephone wire and insulator
Road crosses ridge
Look for rock mounds on north side
Tread
Tread north of road
BTT
Broken rock
Good NNT tread
Large rocks
Vista point
SFR CAMP 7/21/88
Road crosses trail and ridge
Telephone wire
Broken rock
Rock
Junie
Follows ridge with several ups and
Hep
Wire
Pile of insulators
To U.S. 12
Jerry Johnson
Documenter
Indian Postoffice
Jerry
Squaw Cr. Road
Heavy grained tread
Flat spot
Vista point
Water
"Inferior grass"
Camping place
Ridge
SFR camp with Dad 1986
"Lake in midair"
Heavy brush
Tel wire
WT
Tread
Tel wire
Arrowhead
Nez Perce Camps
N 46° 32′ 30″
W 114° 57′ 30″



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Map 12. Lolo Trail System

USGS Indian Postoffice, 1966

LC-12, NNT-12, BTT-27, LM-13

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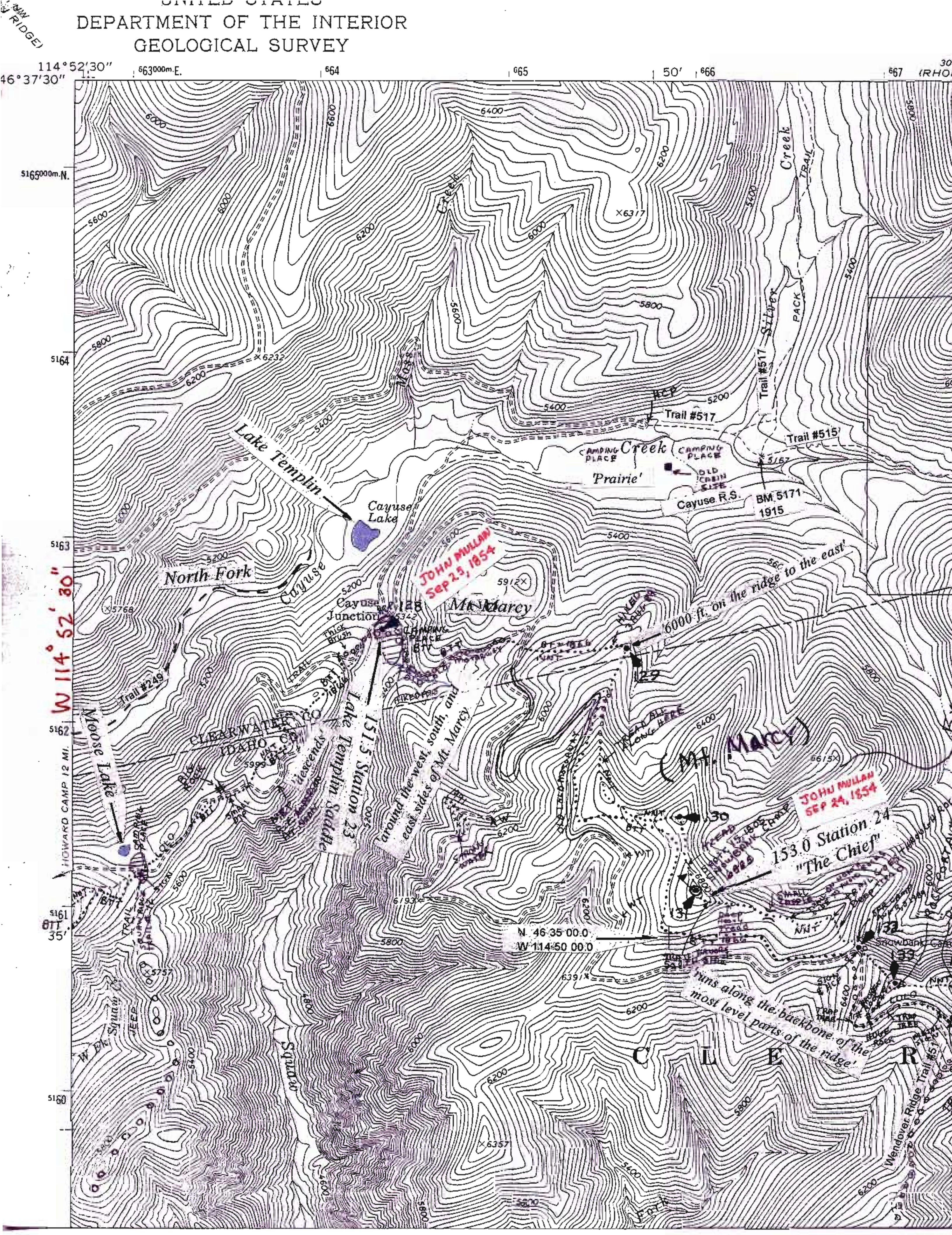
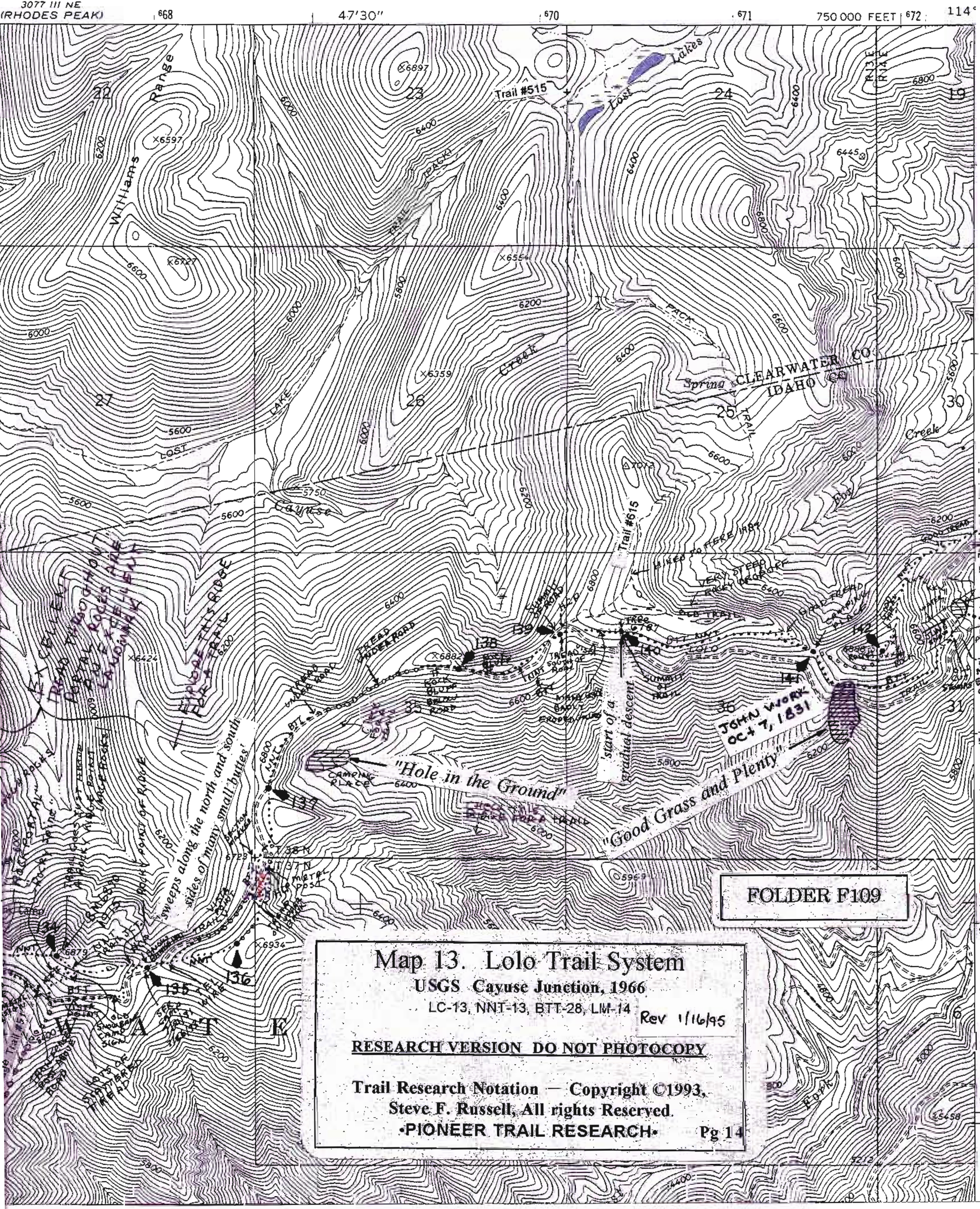
GEOLOGICAL SURVEY



CAYUSE JUNCTION QUADRANGLE
IDAHO
7.5 MINUTE SERIES (TOPOGRAPHIC)



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Map 13. Lolo Trail System

USGS Cayuse Junction, 1966

LC-13, NNT-13, BTT-28, LM-14

Rev 1/16/95

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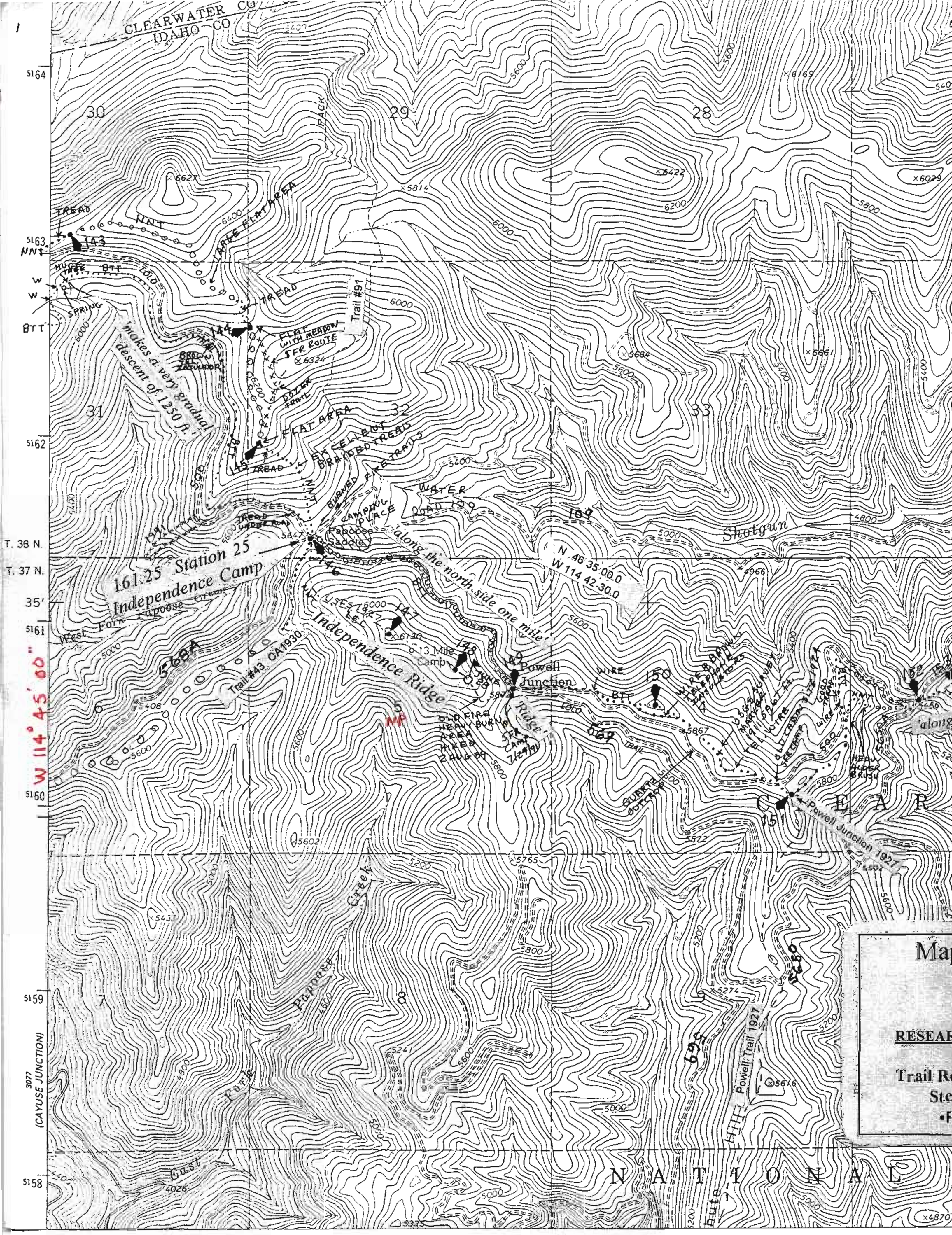
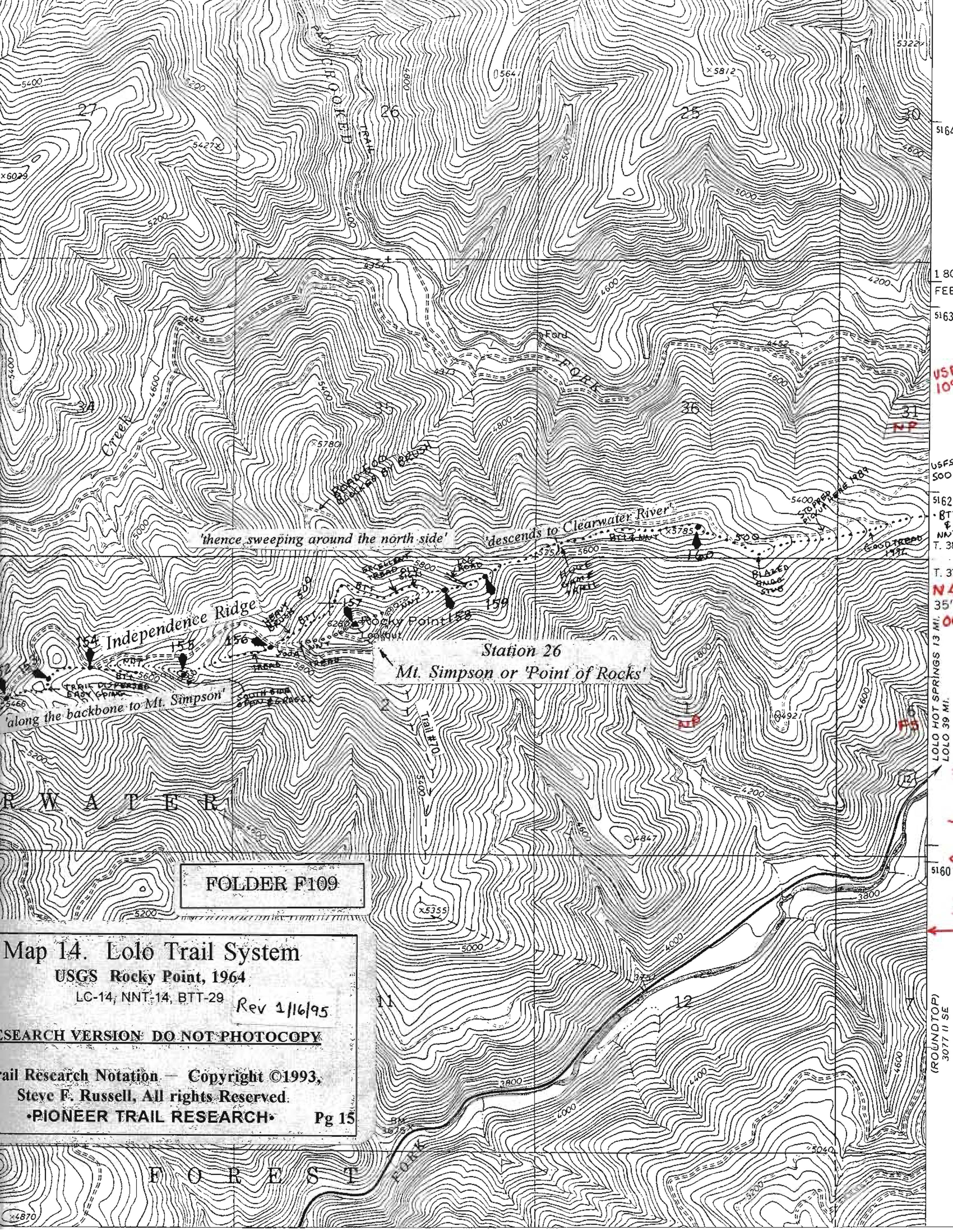
1


CLEARWATER CO
IDAHO CO
5164
5163
5162
5161
5160
5159
5158
30
29
28
31
32
33
6
5
8
7
9
T. 38 N.
T. 37 N.
35'
6627
5814
6422
6169
6029
5684
5661
6324
5647
4966
6130
5872
5867
5602
5765
5572
5433
5241
5274
5616
4026
5335
4870
6400
6200
6000
5800
5600
5400
5200
5000
4800
PACK
TREAD
NNT
143
HUGE TREE
BTT
LOLO
W
W
SPRING
LARGE FLAT AREA
TREAD
144
FLAT WITH MEADOW
SFR ROUTE
DOZER TRAIL
Trail #91
BROWN TEL. INSULATOR
makes a very gradual descent of 1250 ft.
FLAT AREA
145
TREAD
EXCELLENT BRAIDED TREAD
BURNED FIRE TRAILS
CAMPING PLACE
WATER
ROAD 109
109
500
1991
TREAD UNDER ROAD
Papoose Saddle
161.25 Station 25
Independence Camp
146
West Fork Papoose Creek
along the north side one mile
N 46 35.00.0
W 114 42.30.0
Shotgun
NNT
USFS 1927
LEL
147
13 Mile Camp
148
JUNE 0.28
149
Powell Junction
Independence Ridge
Ridge
Trail #43, CA1930
560A
W 114°45'00"
MP
OLD FIRE HEAVY BURN AREA HIKED 2 AUG 89
SFR CAMP 7/24/91
WIRE
BTT
150
LOLO
069
TRAIL
WIRE & BROWN TELEPHONE INSULATORS
USGS SURVEY MARKER 5867 ft
WIRE
OLD CABIN SITE 1927
SFR CAMP
GOOD TREAD
WIRE
500
QUARTZ OUTCROP
151
Powell Junction 1927
HEAVY ALDER BRUSH
152
NNT
along
C E A R
560
Papoose
Creek
Fork
East
Powell Trail 1927
Hill
Chute
N A T I O N A L
3077 (CAYUSE JUNCTION)
Ma
RESEAR
Trail Re
Ste
•F



Map 14. Lolo Trail System

USGS Rocky Point, 1964

LC-14, NNT-14, BTT-29

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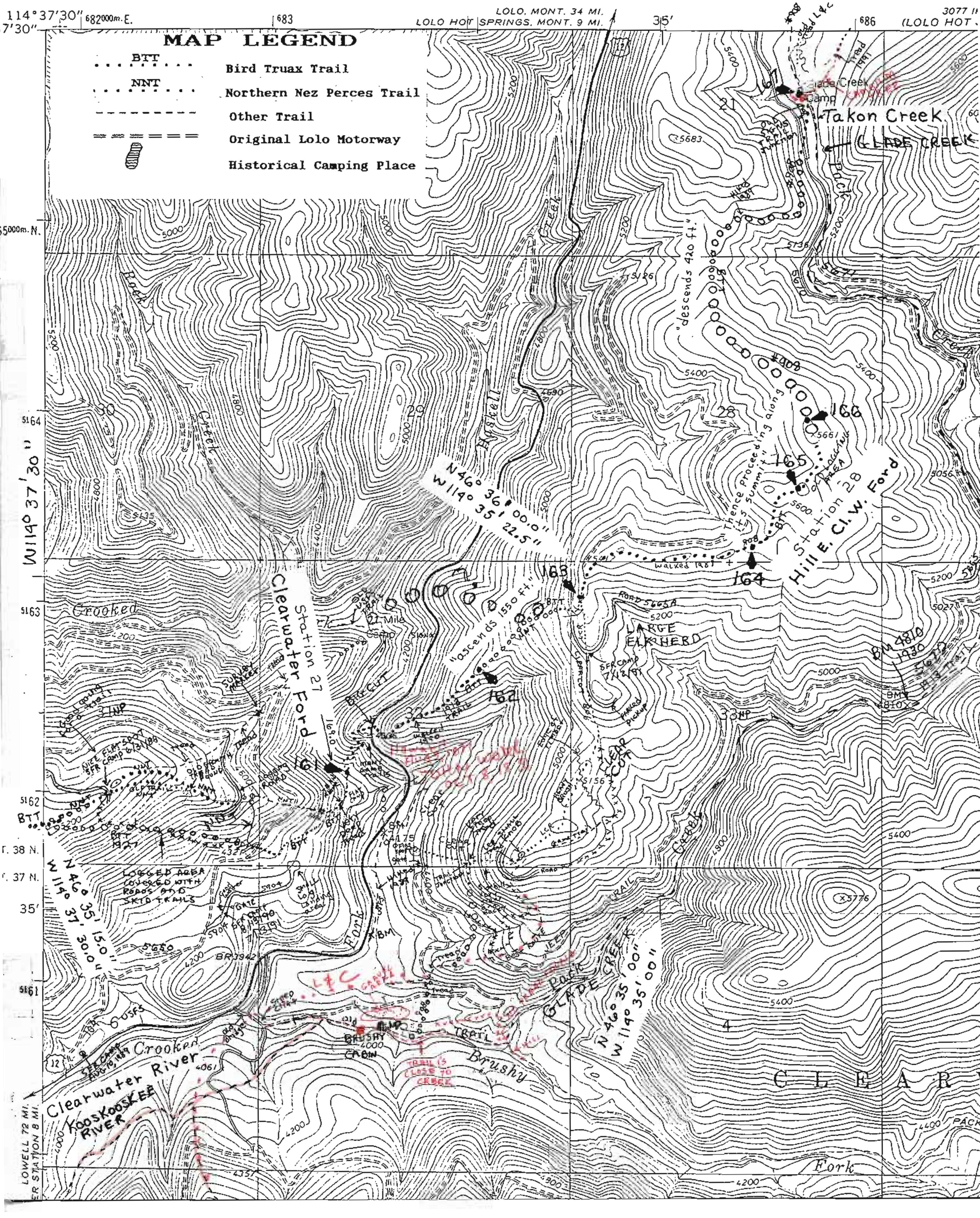
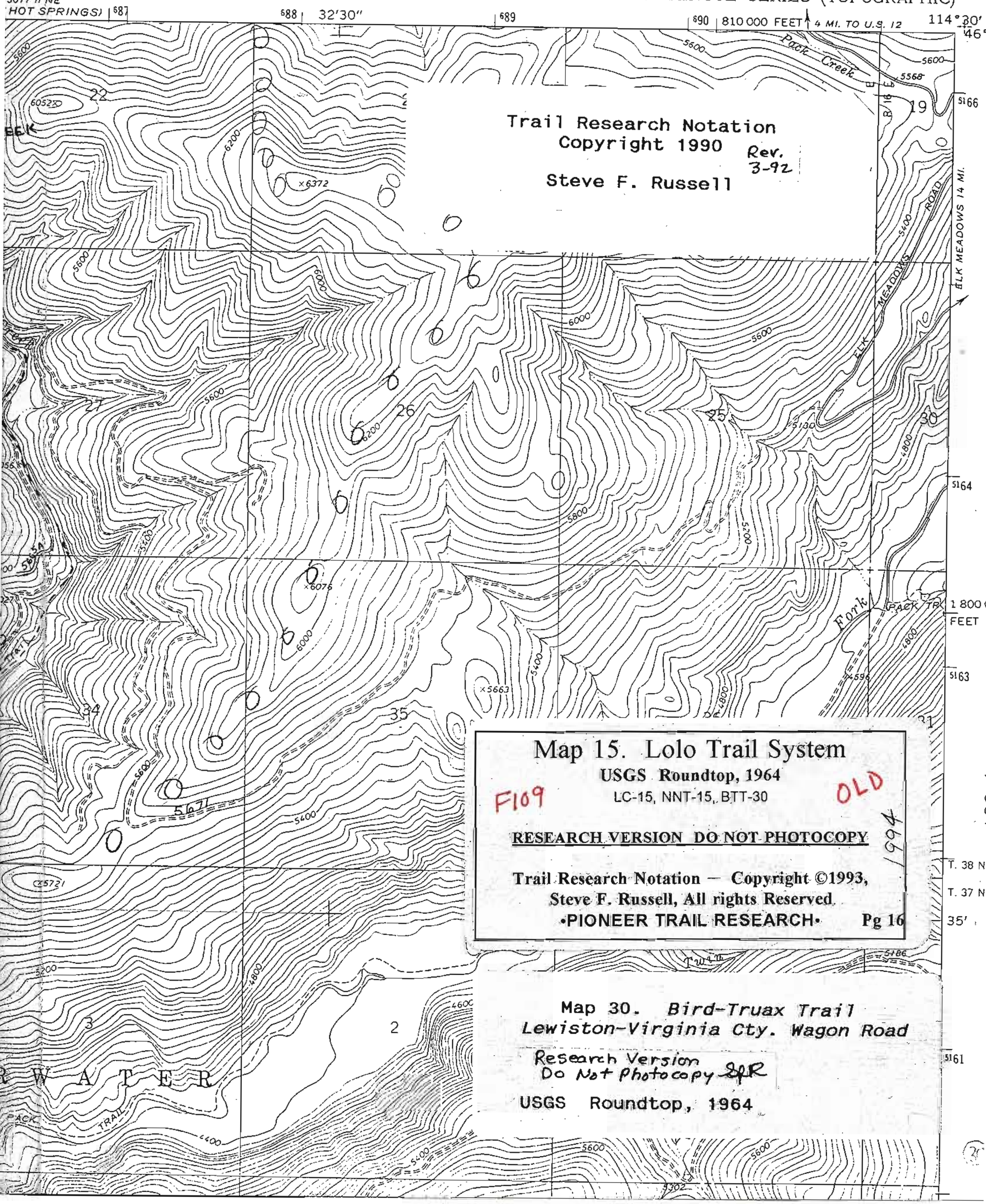


ROUNDTOP QUADRANGLE
IDAHO—IDAHO CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



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Map 15. Lolo Trail System

USGS Roundtop, 1964

F109 LC-15, NNT-15, BTT-30 OLD

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Map 30. *Bird-Truax Trail*
Lewiston-Virginia Cty. Wagon Road

Research Version
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USGS Roundtop, 1964

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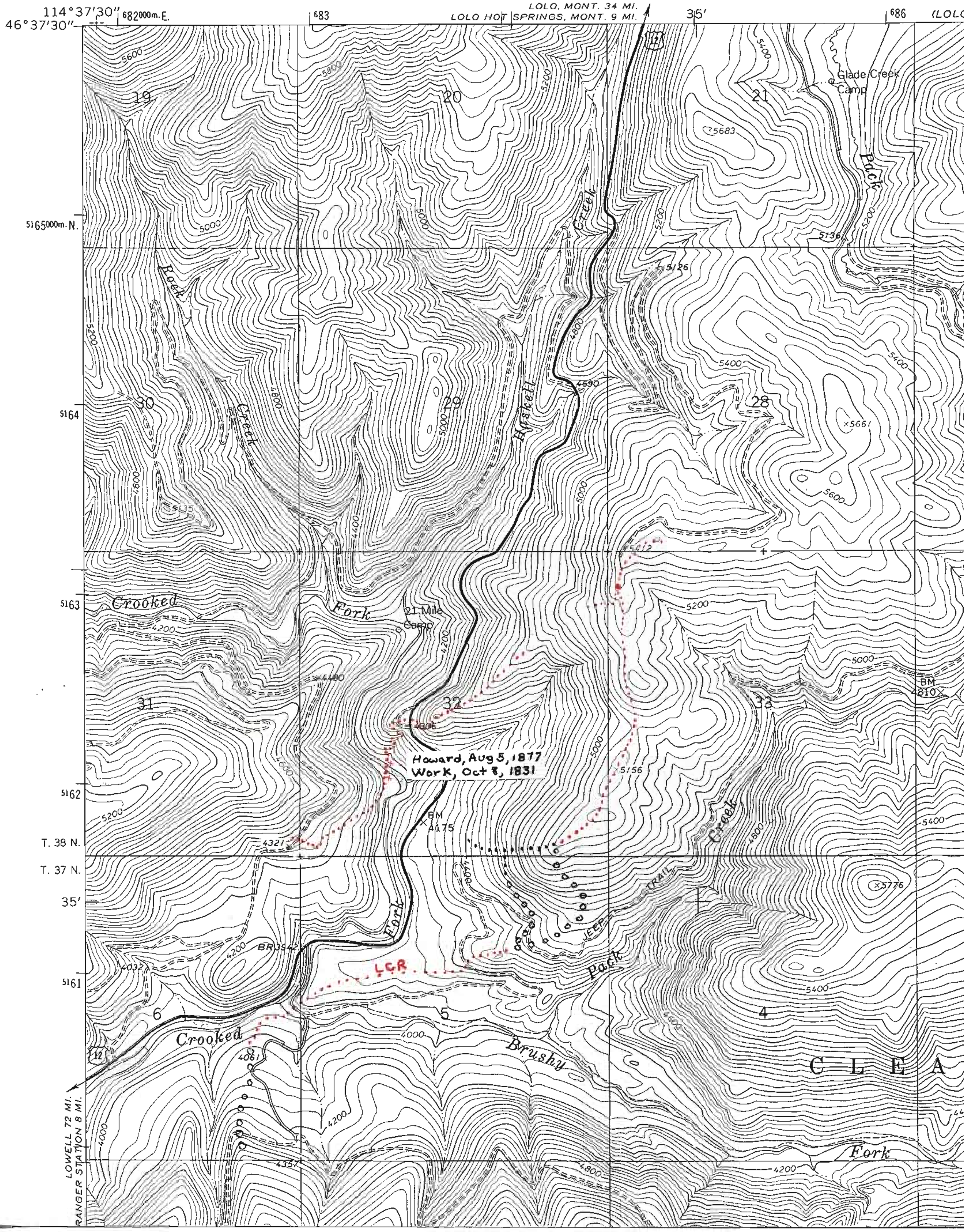

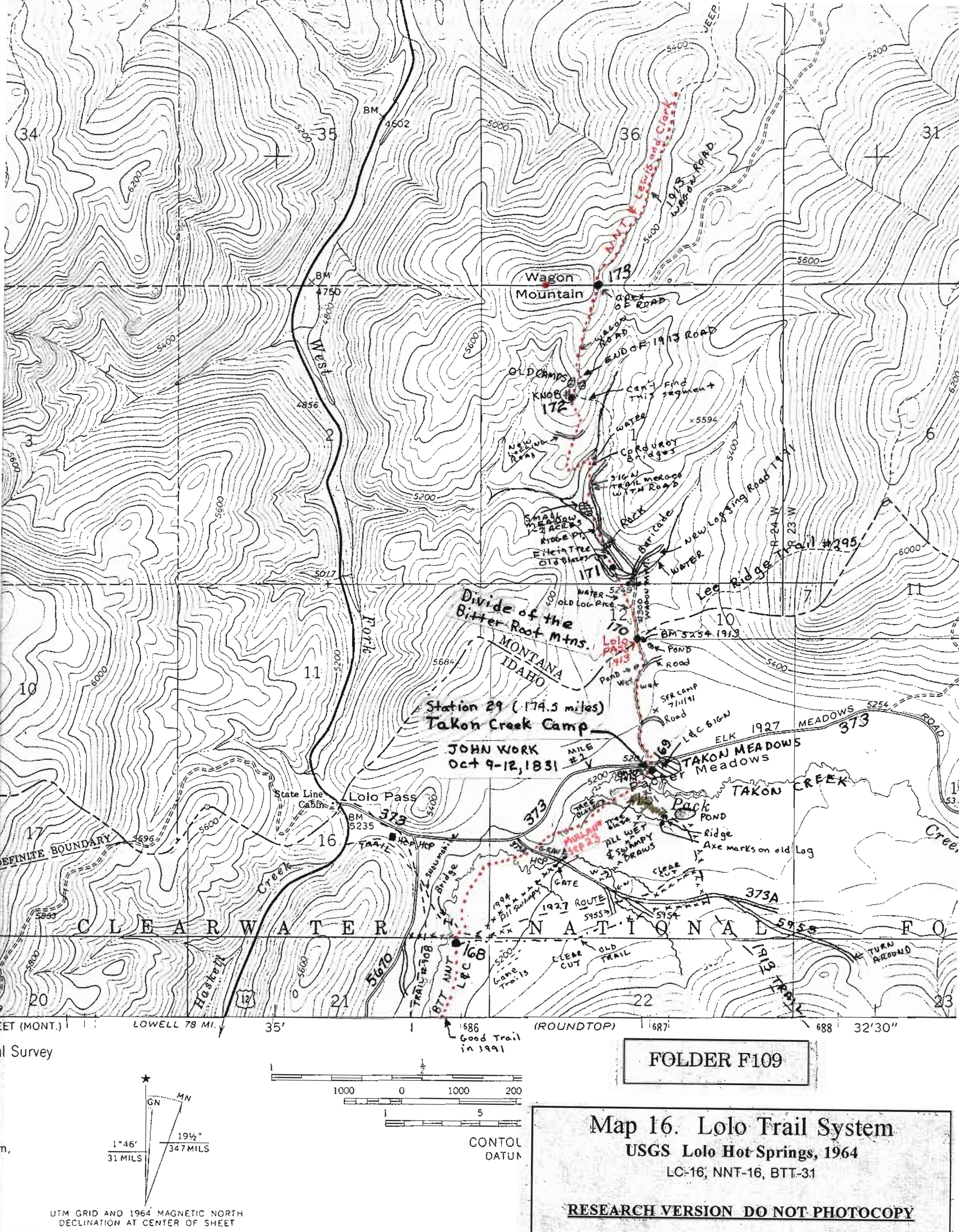

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Map 16. Lolo Trail System

USGS Lolo Hot Springs, 1964

LC-16, NNT-16, BTT-31

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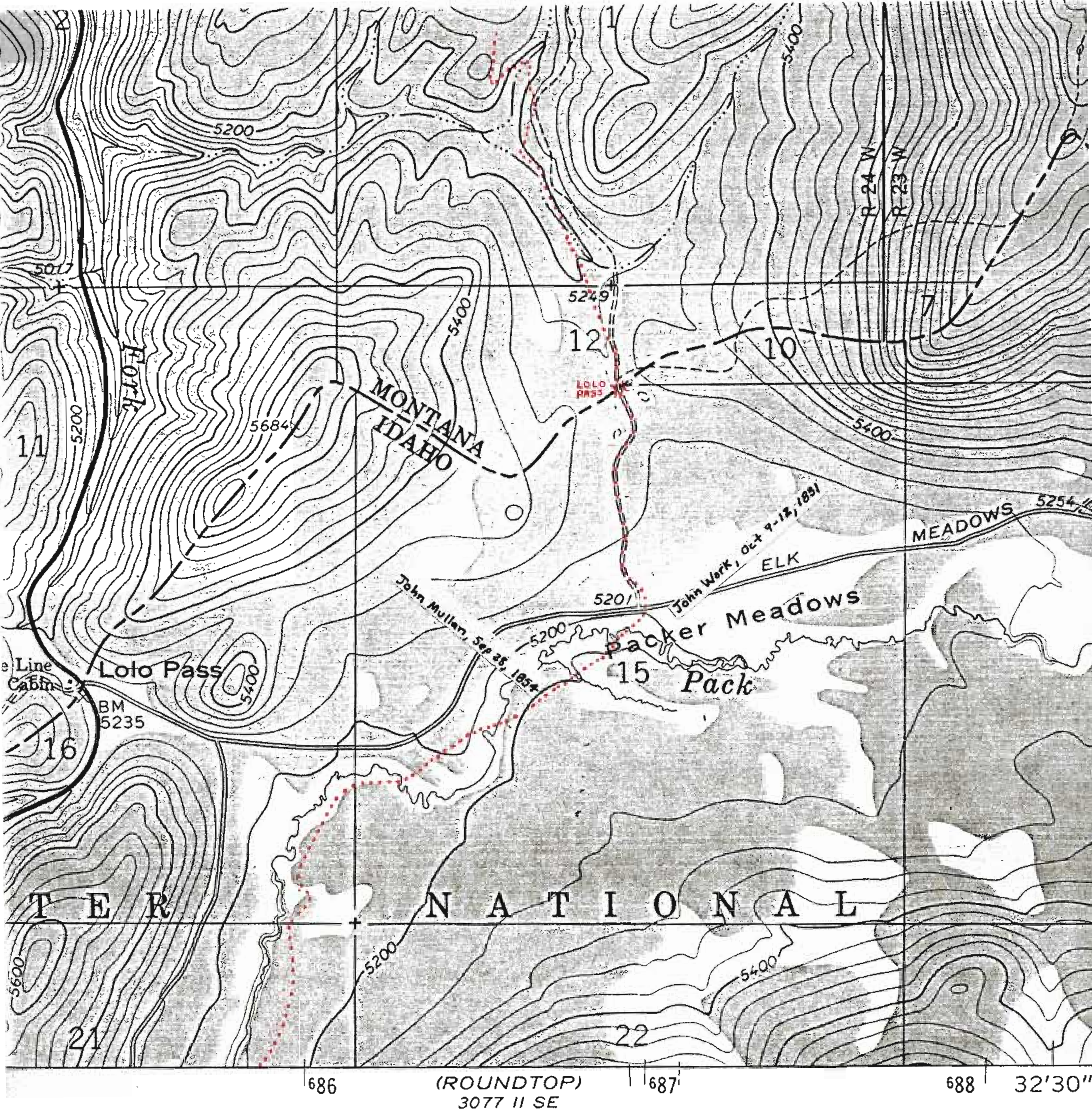
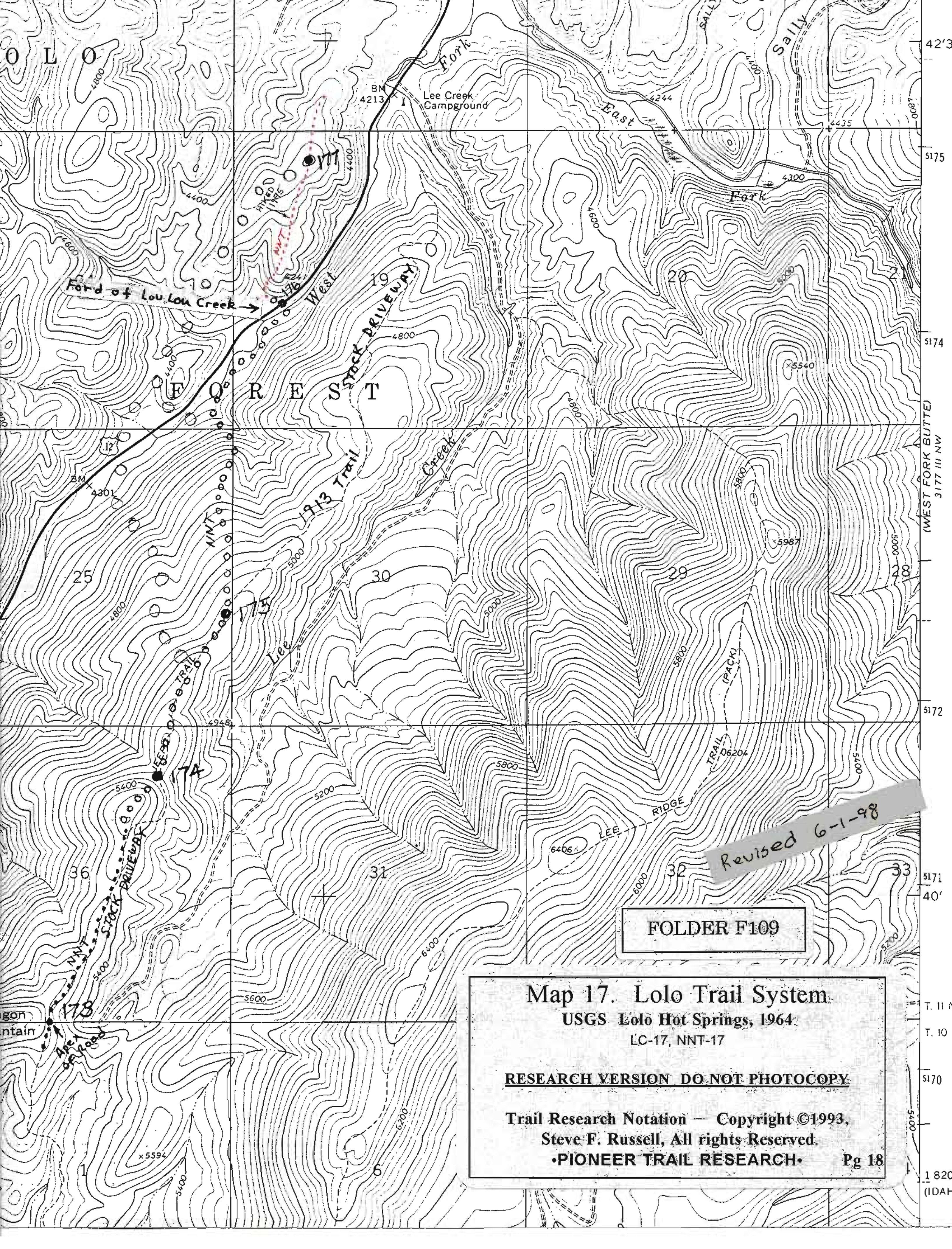

MONTANA
IDAHO
Lolo Pass
LOLO PASS
Line Cabin
BM 5235
Fork
Packer Meadows
Pack
ELK MEADOWS
John Work, Oct 9-12, 1851
John Mullan, Sep 28, 1854
NATIONAL
TER
R 24 W
R 23 W
5017
5200
5249
5400
5684
5201
5254
5600
1
2
7
10
11
12
15
16
21
22
686
687
688
32'30"
(ROUNDTOP)
3077 II SE



Revised 6-1-98

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Map 17. Lolo Trail System

USGS Lolo Hot Springs, 1964

LC-17, NNT-17

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Map 18. Lolo Trail System

USGS Lolo Hot Springs, 1964

LC-18, NNT-18

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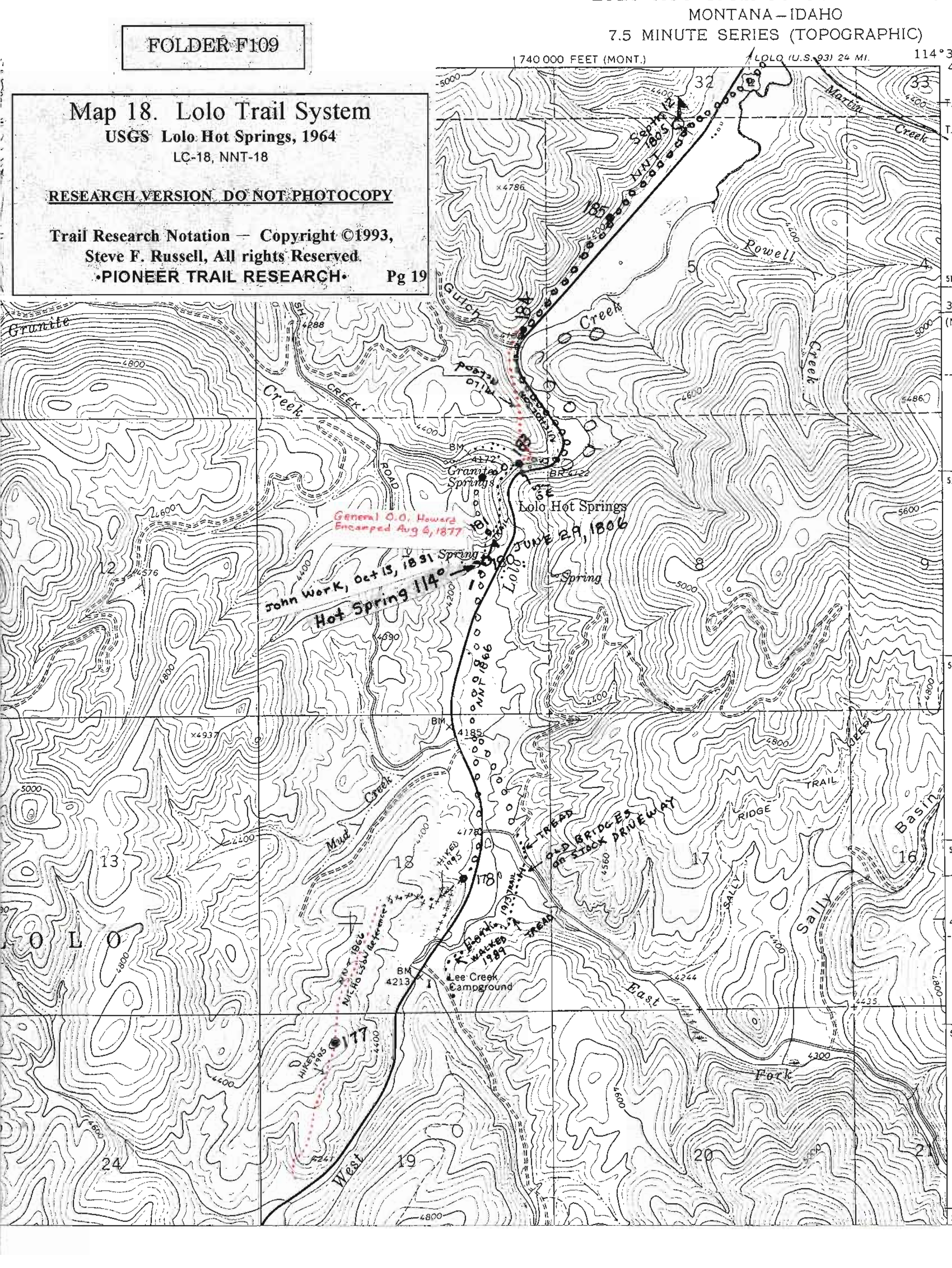

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Map 19. Lolo Trail System

USGS Lupine Creek, 1964

LC-19, NNT-19

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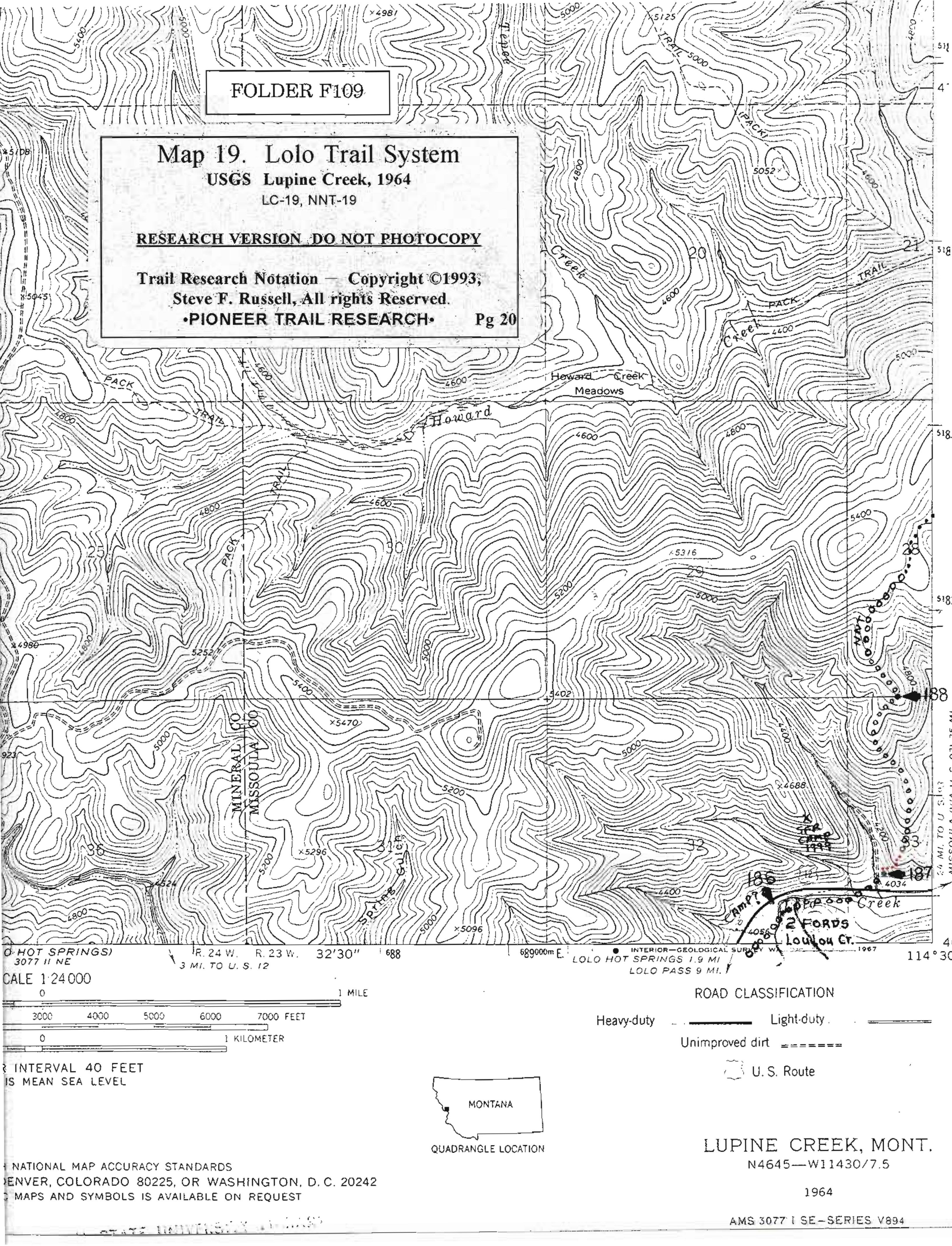
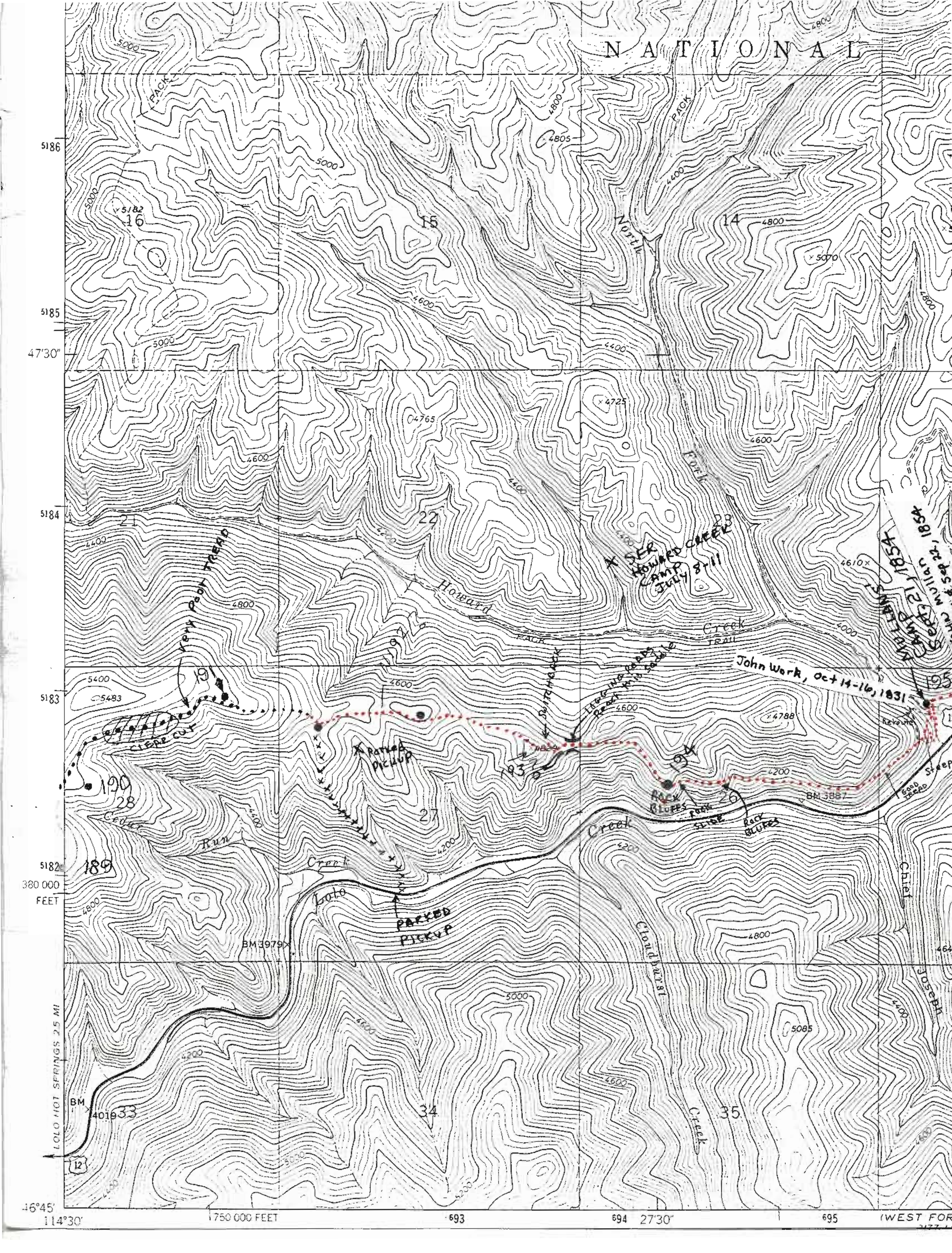
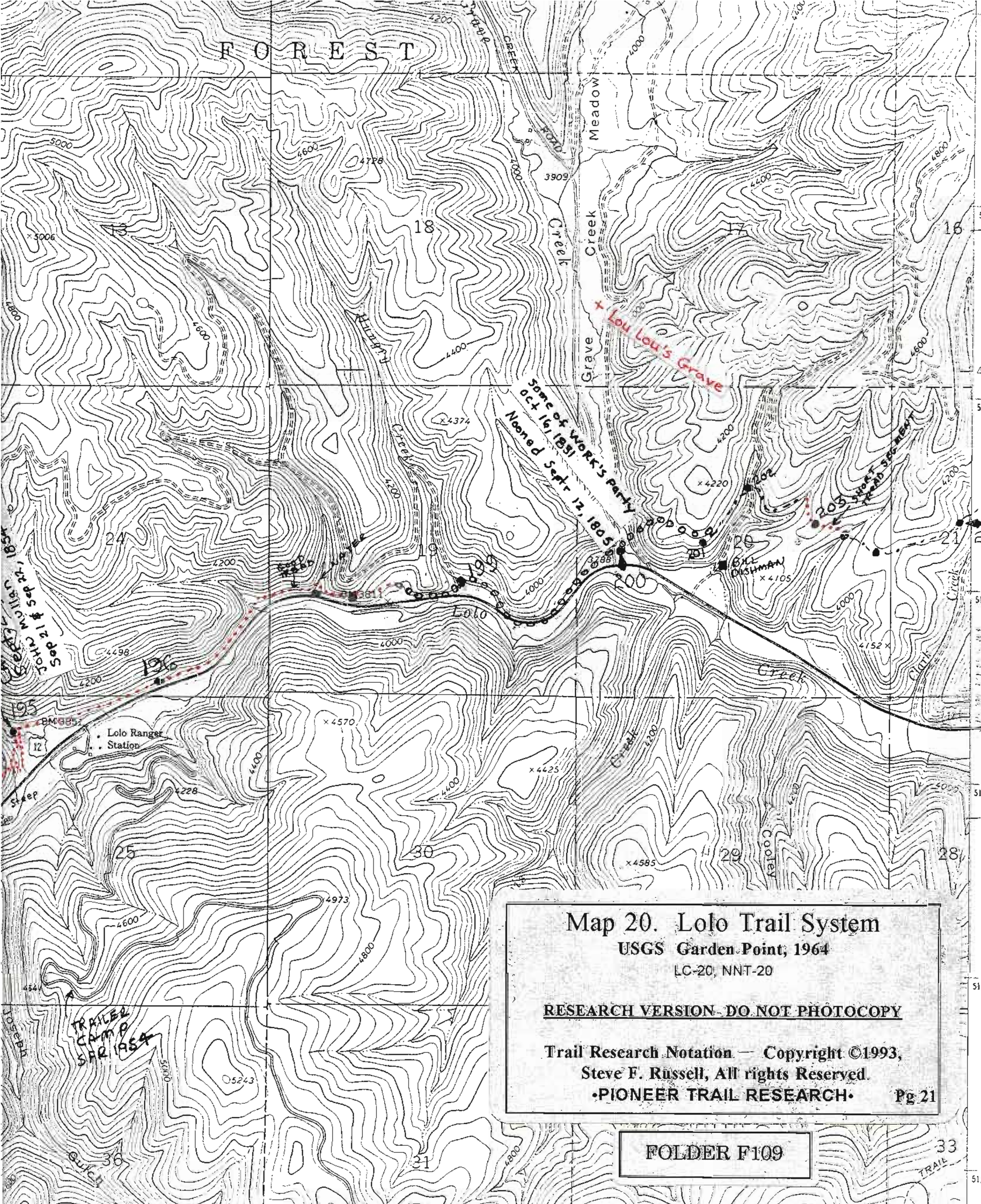



N A T I O N A L
5186
5185
47'30"
5184
5183
5182
380 000 FEET
46°45'
114°30'
1750 000 FEET
693
694
27'30"
695
(WEST FOR
PACK
North Fork
Howard Creek
PACK TRAIL
Cedar Run
Lolo Creek
Cloudburst Creek
Chief Joseph
LOLO HOT SPRINGS 25 MI
12
BM 3979
BM 4019
BM 3887
16
15
14
21
22
23
28
27
26
33
34
35
Very poor TREAD
CLEAR CUT
189
190
191
192
193
194
195
SWITCHBACK
LOGGING ROADS Reach this saddle
Parked Pickup
PARKED PICKUP
ROCK BLUFFS
ROCK SLIDE
ROCK BLUFFS
X SER HOWARD CREEK CAMP JULY 8-11
John Work, Oct 14-16, 1831
MULLAN'S CAMP Sept. 21, 1854
Mullan ... Sept 22, 1854
Reroute
Steep
GOOD TREAD



Map 20. Lolo Trail System

USGS Garden Point, 1964

LC-20, NNT-20

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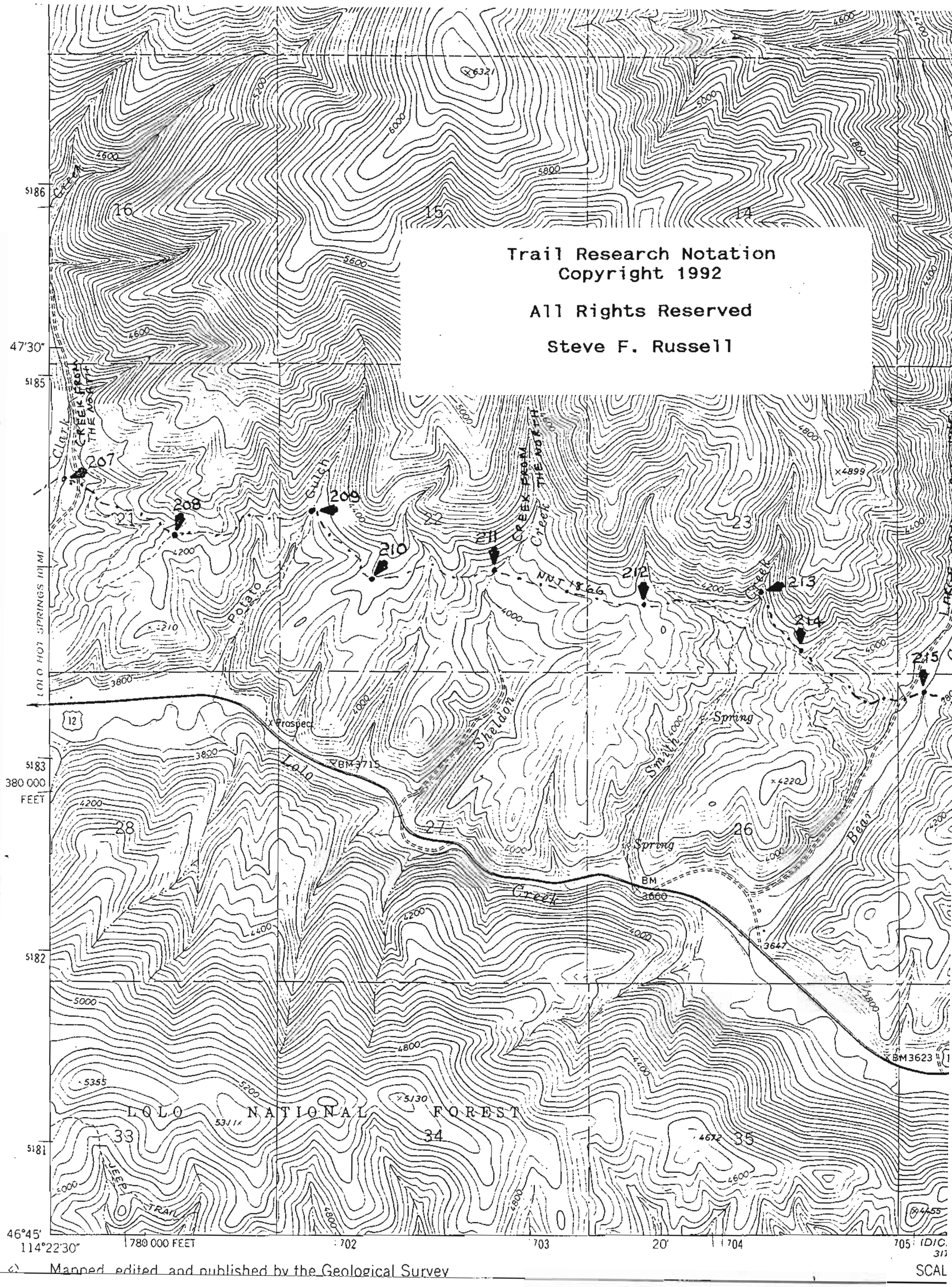
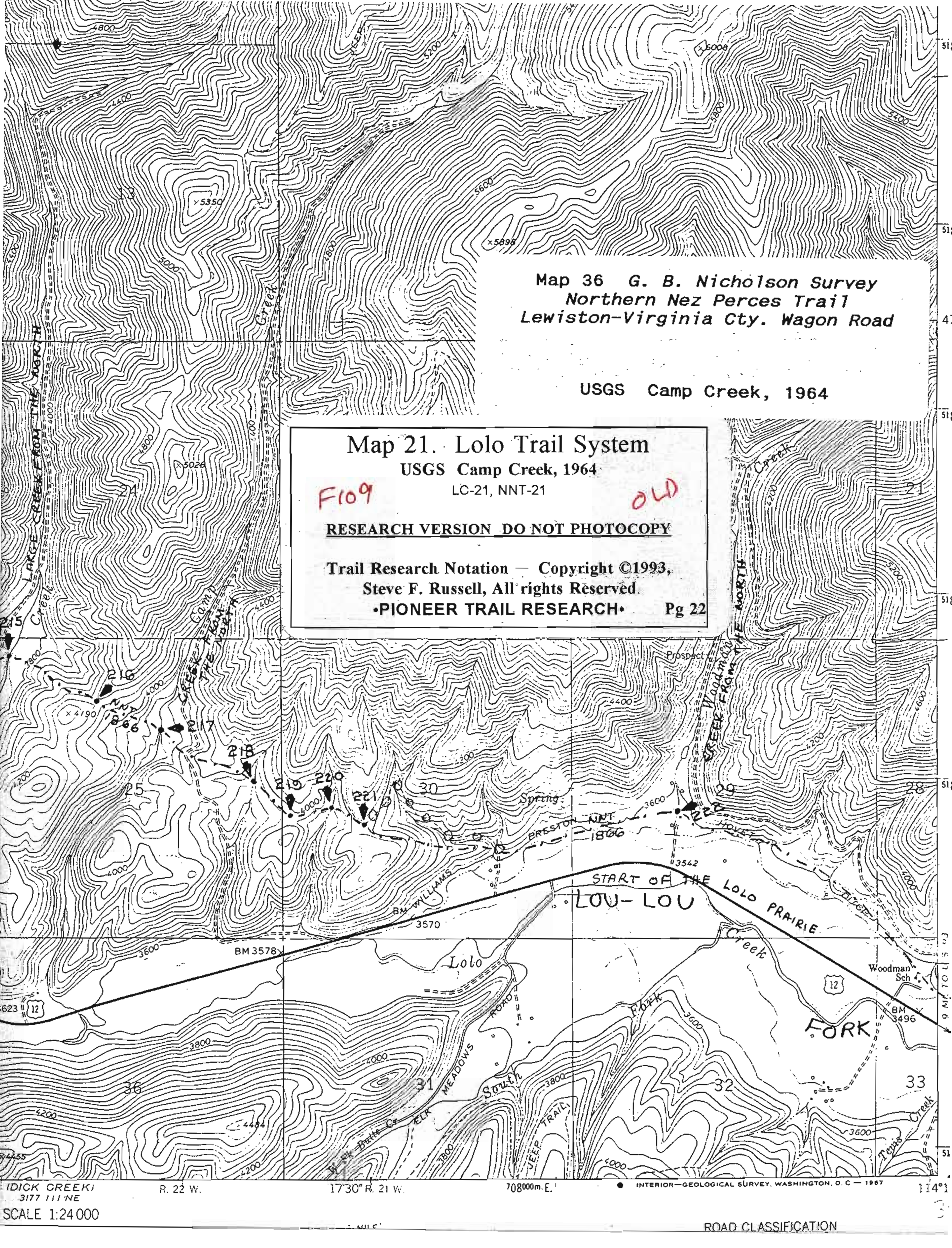
•PIONEER TRAIL RESEARCH•

FOLDER F109



Trail Research Notation

Steve F. Russell



Map 36 G. B. Nicholson Survey
Northern Nez Perces Trail
Lewiston-Virginia Cty. Wagon Road

USGS Camp Creek, 1964

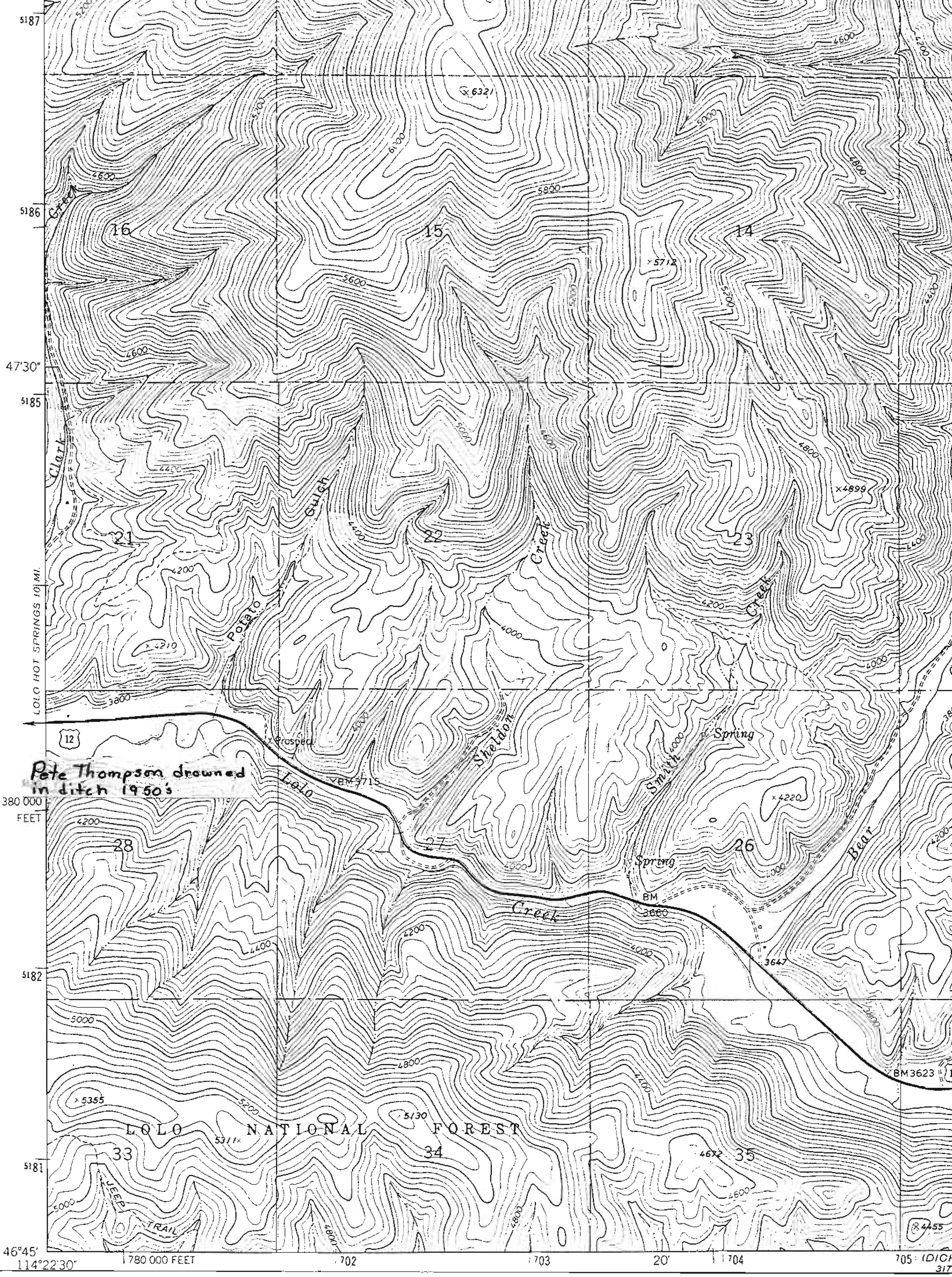
Map 21. Lolo Trail System

USGS Camp Creek, 1964

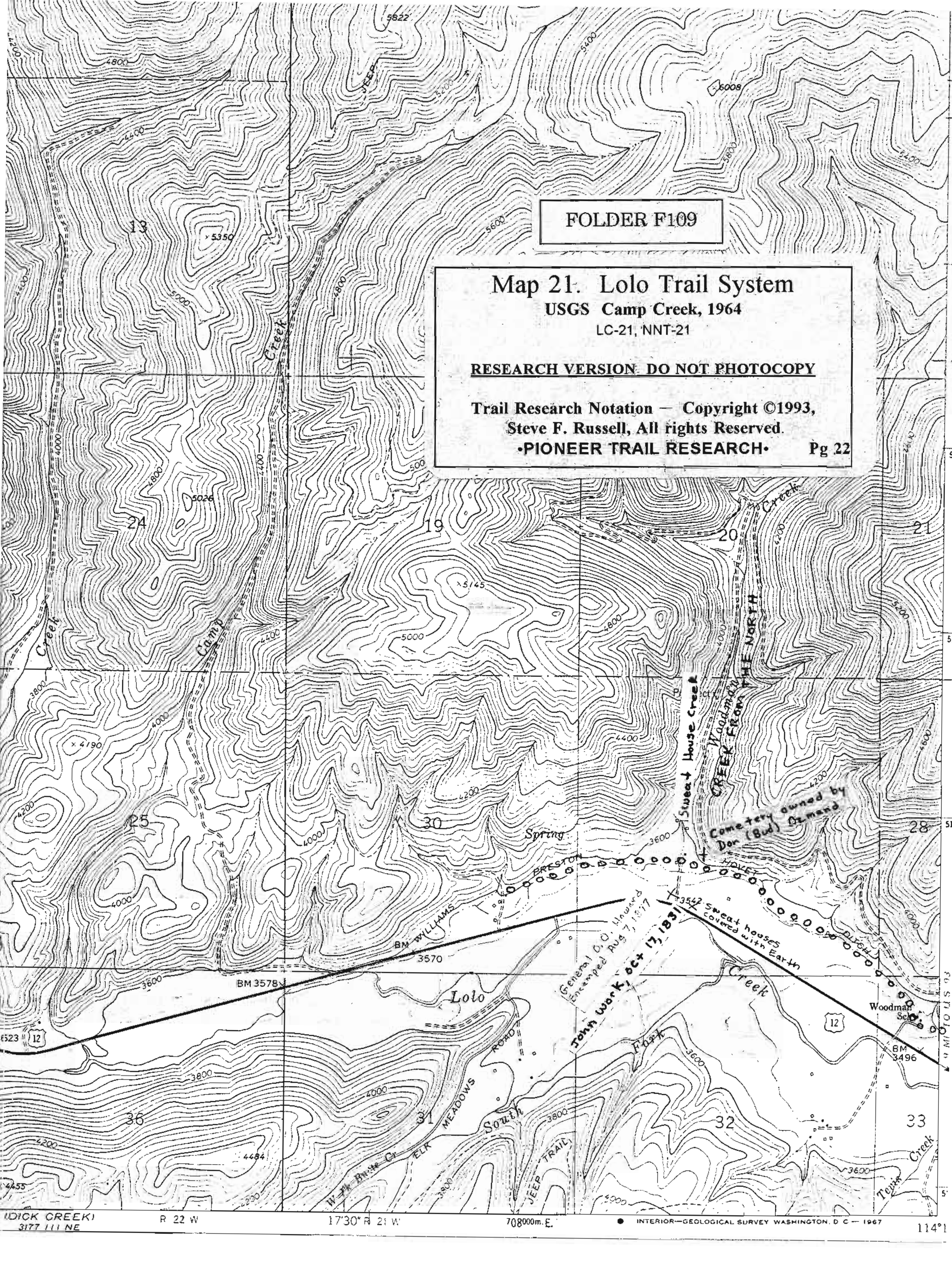
F109 LC-21, NNT-21 OLD

RESEARCH VERSION DO NOT PHOTOCOPY

•PIONEER TRAIL RESEARCH• Pg 22



Pete Thompson drowned in ditch 1950's



FOLDER F109

Map 21. Lolo Trail System

USGS Camp Creek, 1964

LC-21, NNT-21

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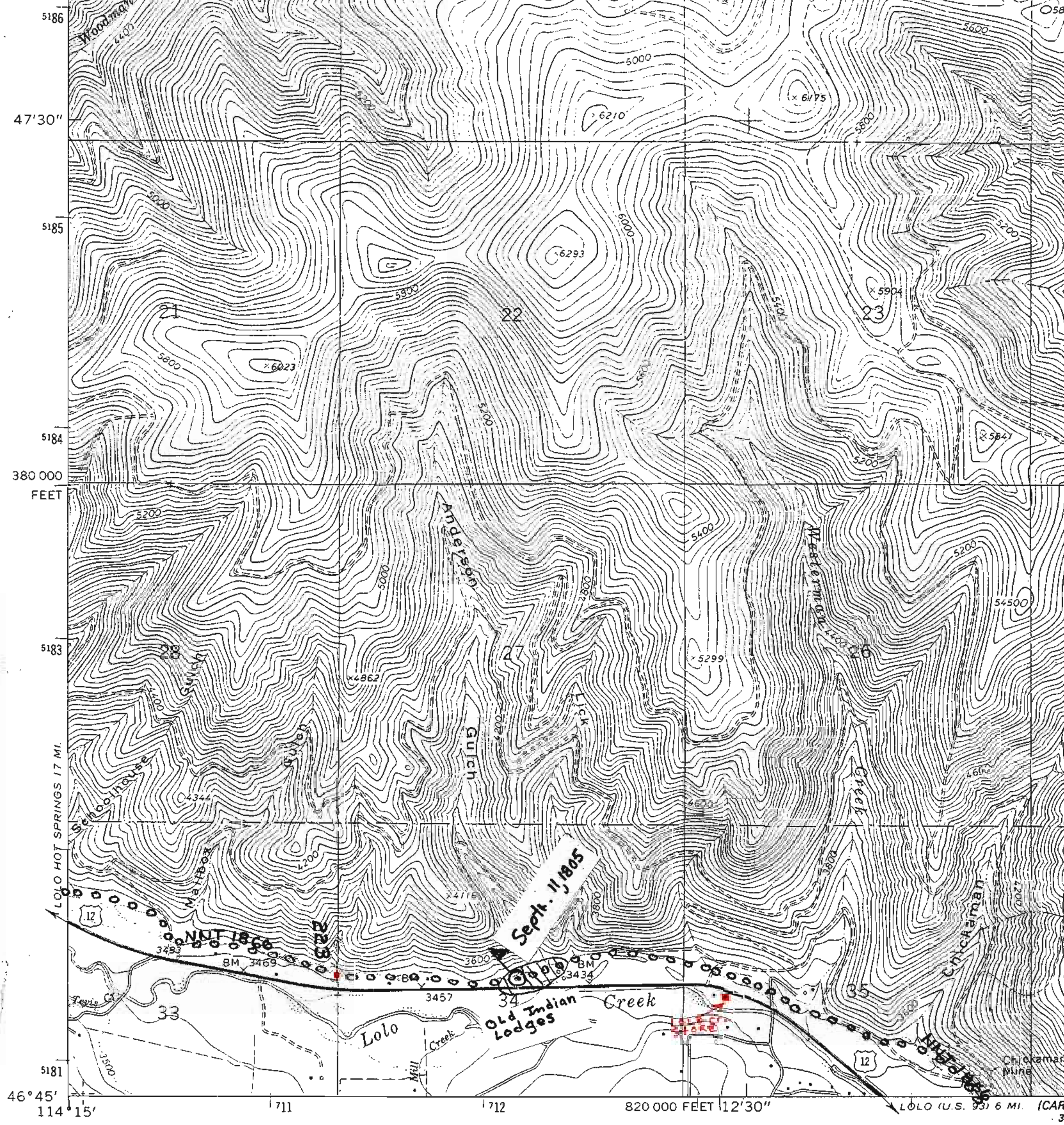

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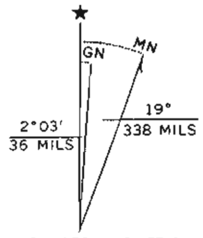
Topography by photogrammetric methods from aerial photographs taken 1961. Field checked 1964

Polyconic projection. 1927 North American datum
10,000-foot grid based on Montana coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Fine red dashed lines indicate selected fence lines

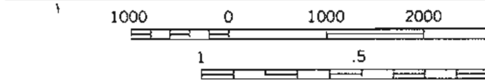
Where omitted, land lines have not been established

Revisions shown in purple and recompilation of woodland areas compiled from aerial photographs taken 1976. Map edited 1978
This information not field checked



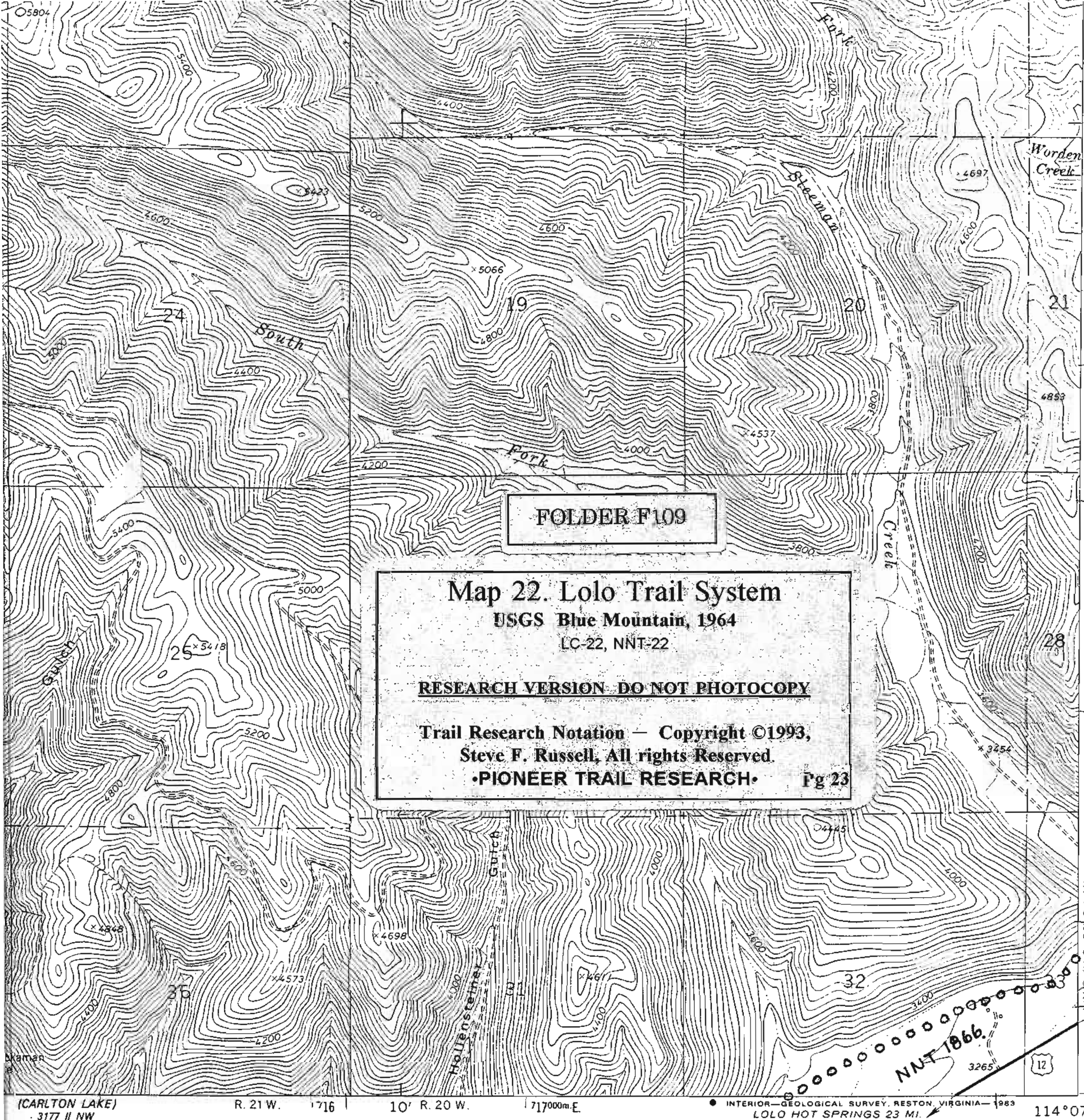
UTM GRID AND 1978 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

SCAL



CONTOUR IN
DOTTED LINES REPR
NATIONAL GEODETIC

THIS MAP COMPLIES WITH N
FOR SALE BY U. S. GEOLOGICAL SURVEY, DEN
A FOLDER DESCRIBING TOPOGRAPHIC M



FOLDER F109

Map 22. Lolo Trail System

USGS Blue Mountain, 1964

LC-22, NNT-22

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•PIONEER TRAIL RESEARCH• **Pg 23**

SCALE 1:24 000

0 1 MILE

00 3000 4000 5000 6000 7000 FEET

0 1 KILOMETER

UR INTERVAL 40 FEET
REPRESENT 20-FOOT CONTOURS
DETIC VERTICAL DATUM OF 1929

Ray Hughes owned
the general store in
Lolo in 1950s

ROAD CLASSIFICATION

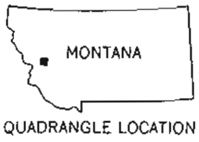
Heavy-duty Light-duty

Unimproved dirt ========

U.S. Route

Woody Bentham

Roy Van Ostrand-antiques



QUADRANGLE LOCATION

BLUE MOUNTAIN, MONT.
N4645—W11407.5/7.5

1964
PHOTOREVISED 1978

ITH NATIONAL MAP ACCURACY STANDARDS
Y, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
HIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

To place on the predicted North American Datum 1983
move the projection lines 12 meters north and
71 meters east as shown by dashed corner ticks.

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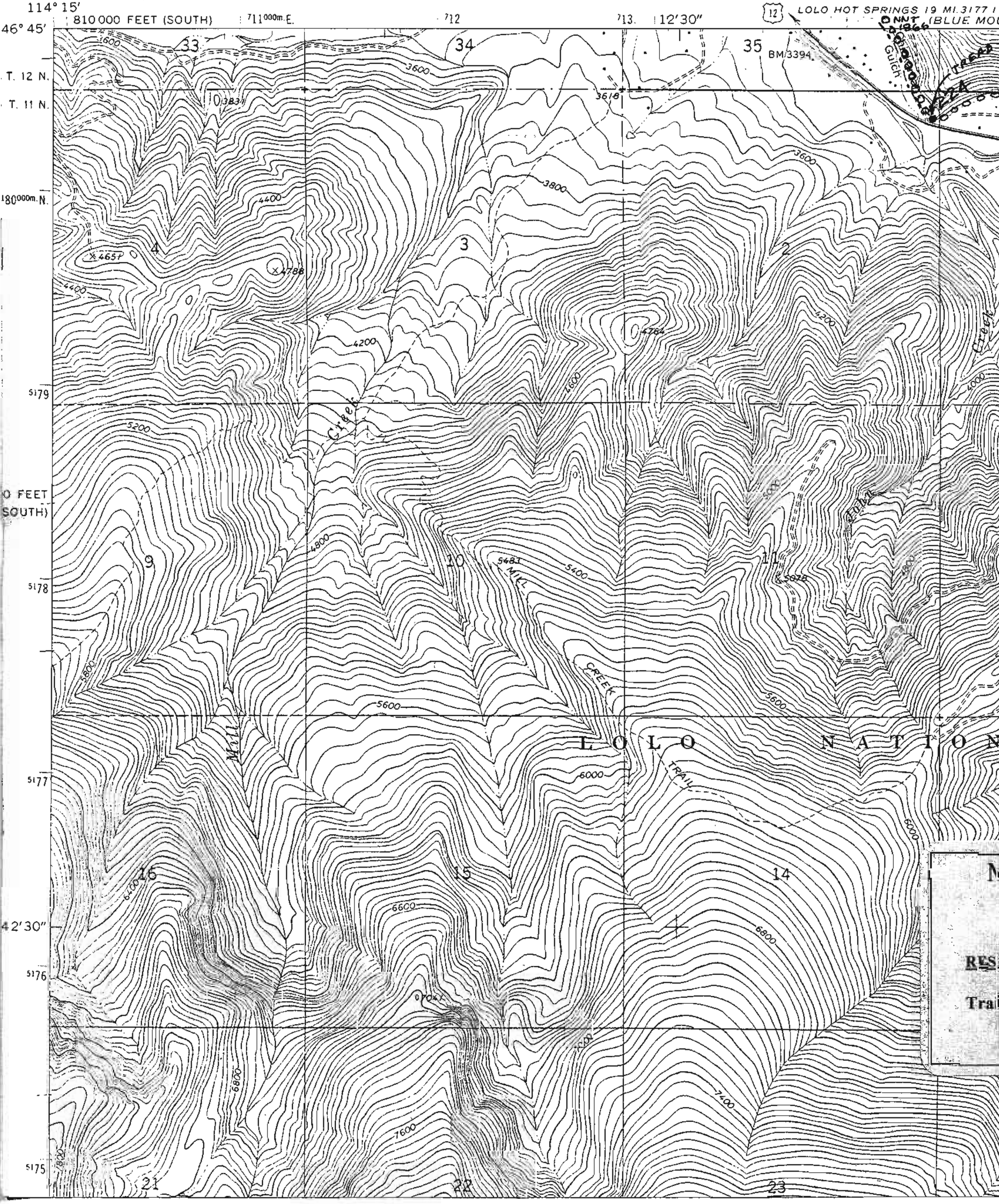
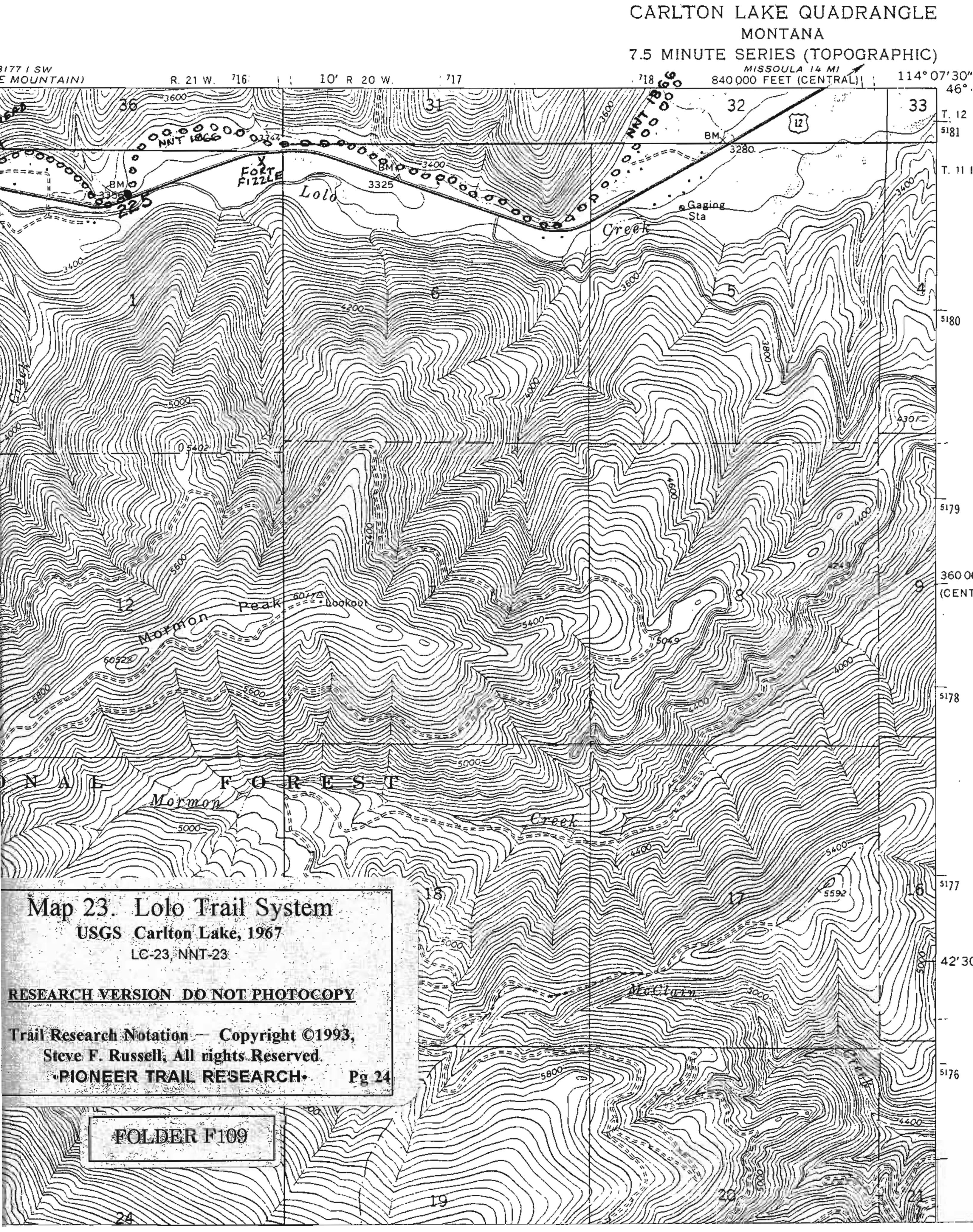
GEOLOGICAL SURVEY





Map 23. Lolo Trail System

USGS Carlton Lake, 1967

LC-23, NNT-23

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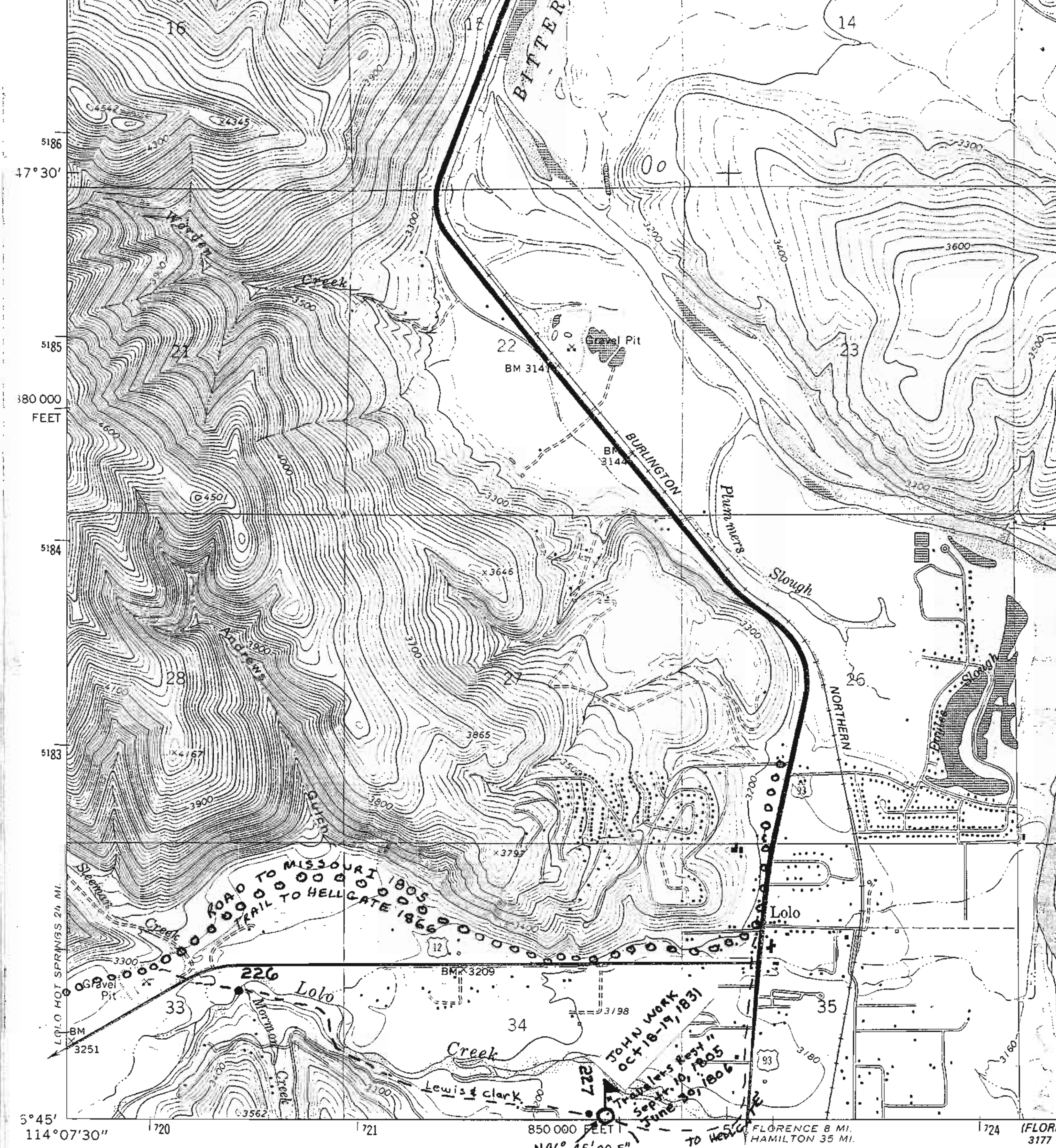

N46° 45' 00.5"
W114° 05' 31.5"

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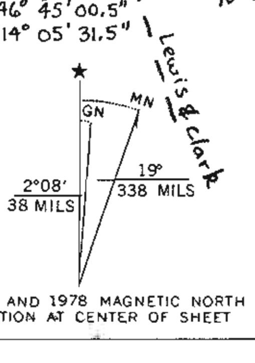
Topography by photogrammetric methods from aerial photographs taken 1961. Field checked 1964

Polyconic projection. 1927 North American datum
10,000-foot grid based on Montana coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

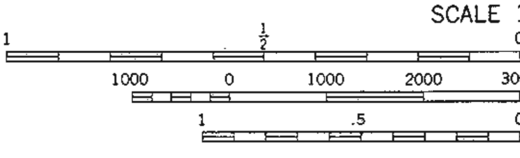
Red tint indicates area in which only landmark buildings are shown

722117 E
5181272 N

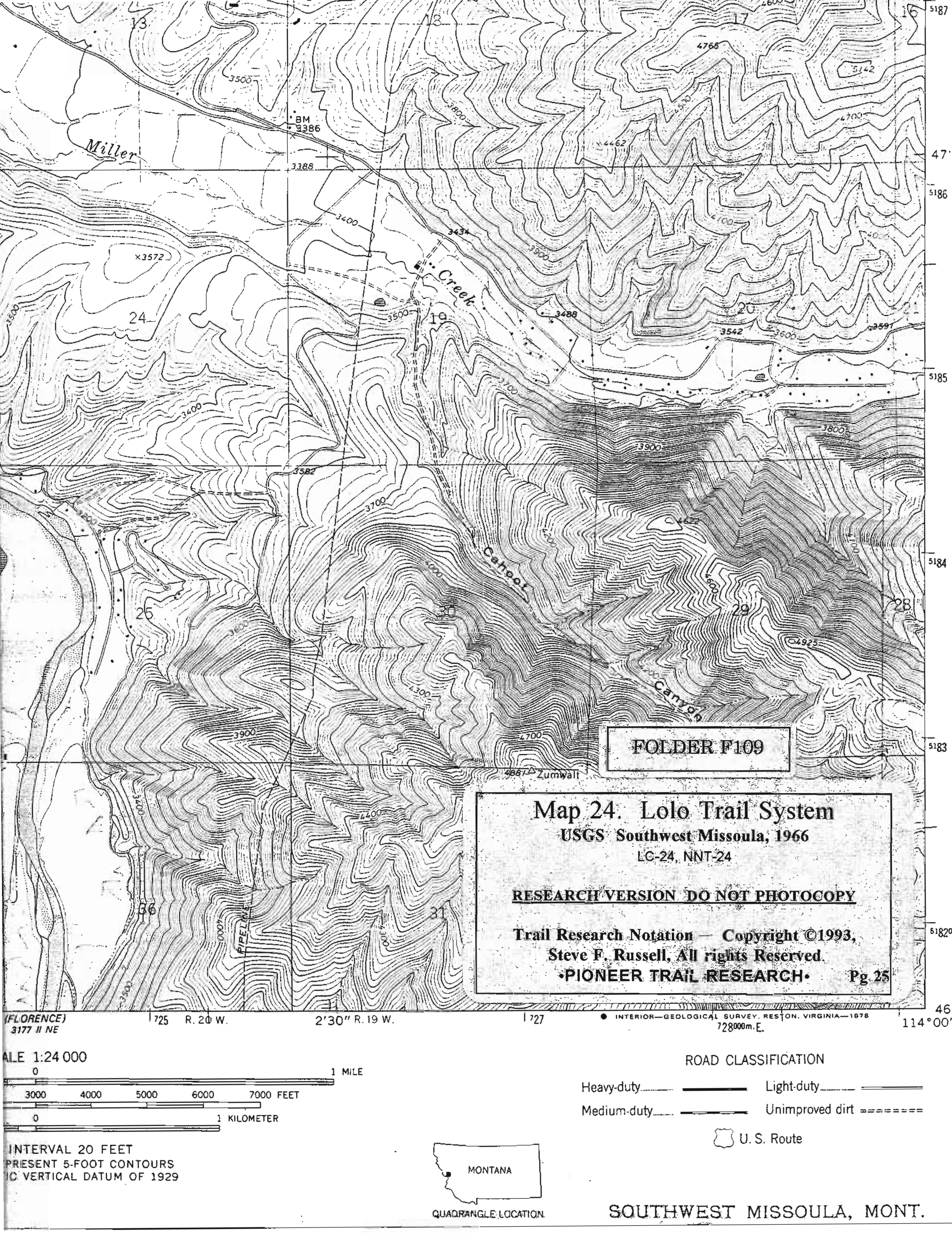


UTM GRID AND 1978 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

SCALE 1



CONTOUR INTE
DOTTED LINES REPRES
NATIONAL GEODETIC VE



FOLDER F109

Map 24. Lolo Trail System

USGS Southwest Missoula, 1966

LC-24, NNT-24

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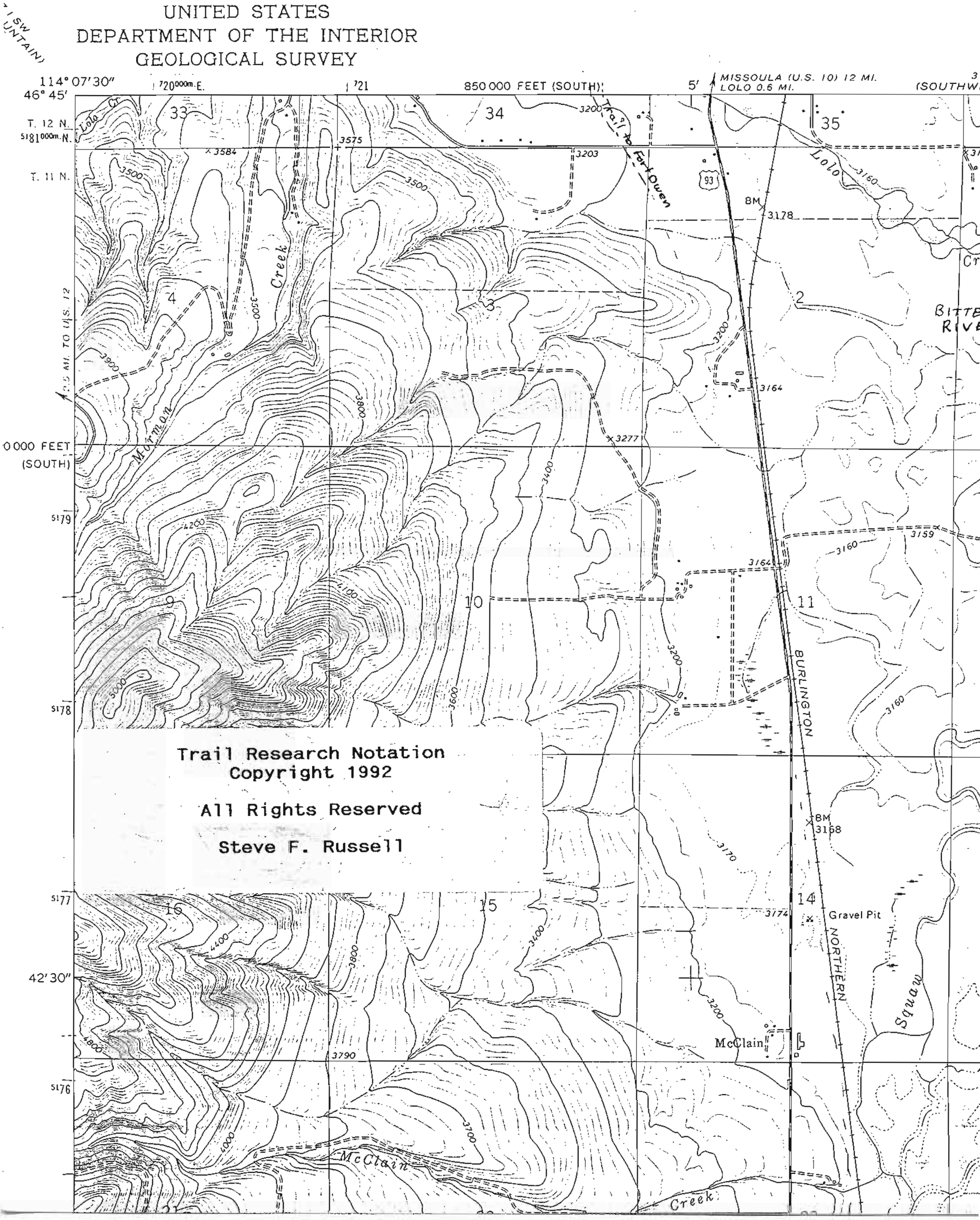
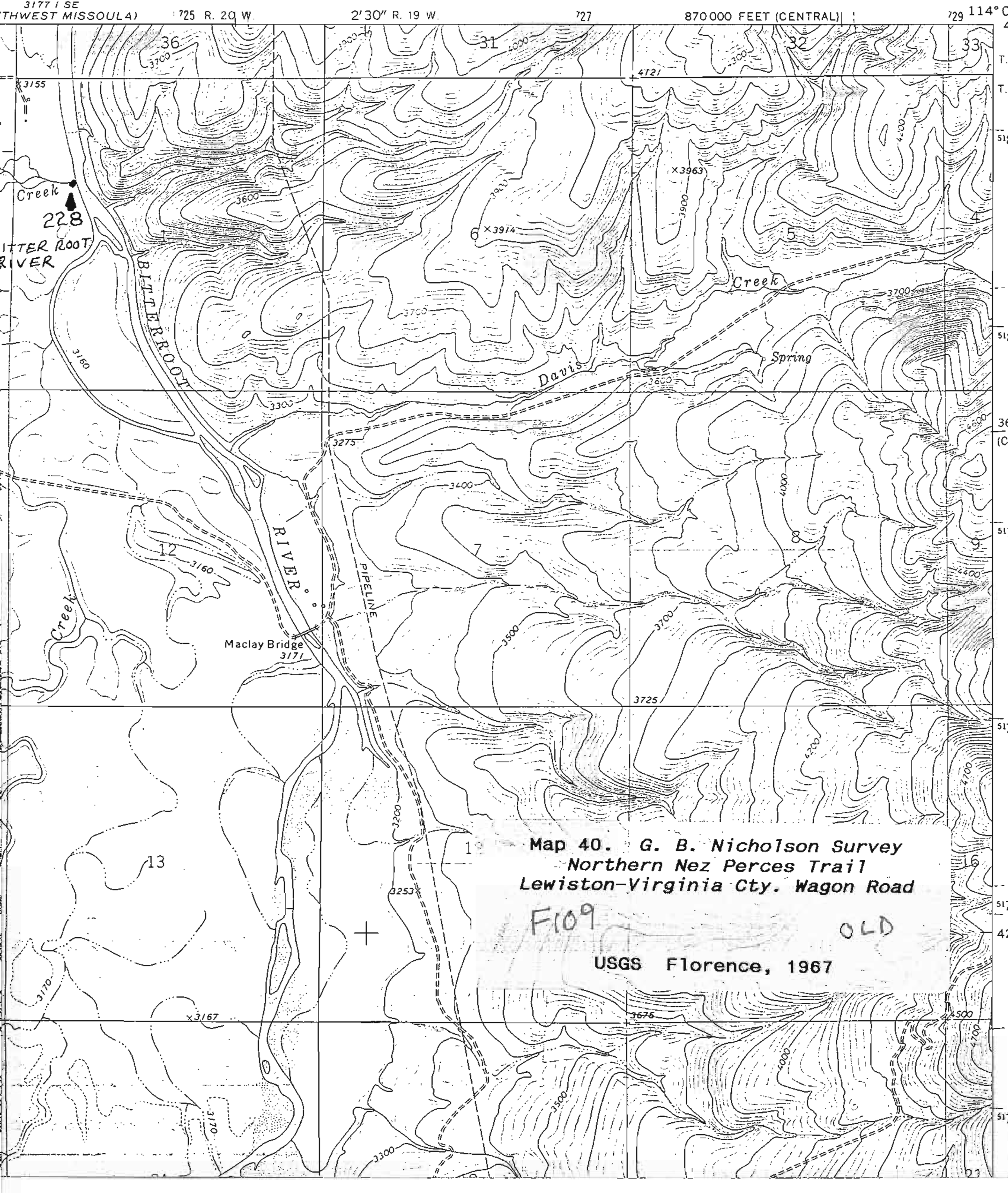
GEOLOGICAL SURVEY



Trail Research Notation

Steve F. Russell

FLORENCE QUADRANGLE
MONTANA
7.5 MINUTE SERIES (TOPOGRAPHIC)



Map 40. *G. B. Nicholson Survey*
Northern Nez Perces Trail
Lewiston-Virginia Cty. Wagon Road

F109 OLD

USGS Florence, 1967

MAP SET - FOLDER F109

LOLO TRAIL SYSTEM

RESEARCH MASTERS

Map Sequence #2, Maps LTS 25-31, Pages 27-33.

1. **Northern nez Perces Trail of 1805-06, southern route, Weippe Prairie eastward to Willow Ridge, Maps LC 1-7.**
2. **Lewis and Clark Route from Weippe Prairie eastward to Willow Ridge, Maps LC 1-7.**

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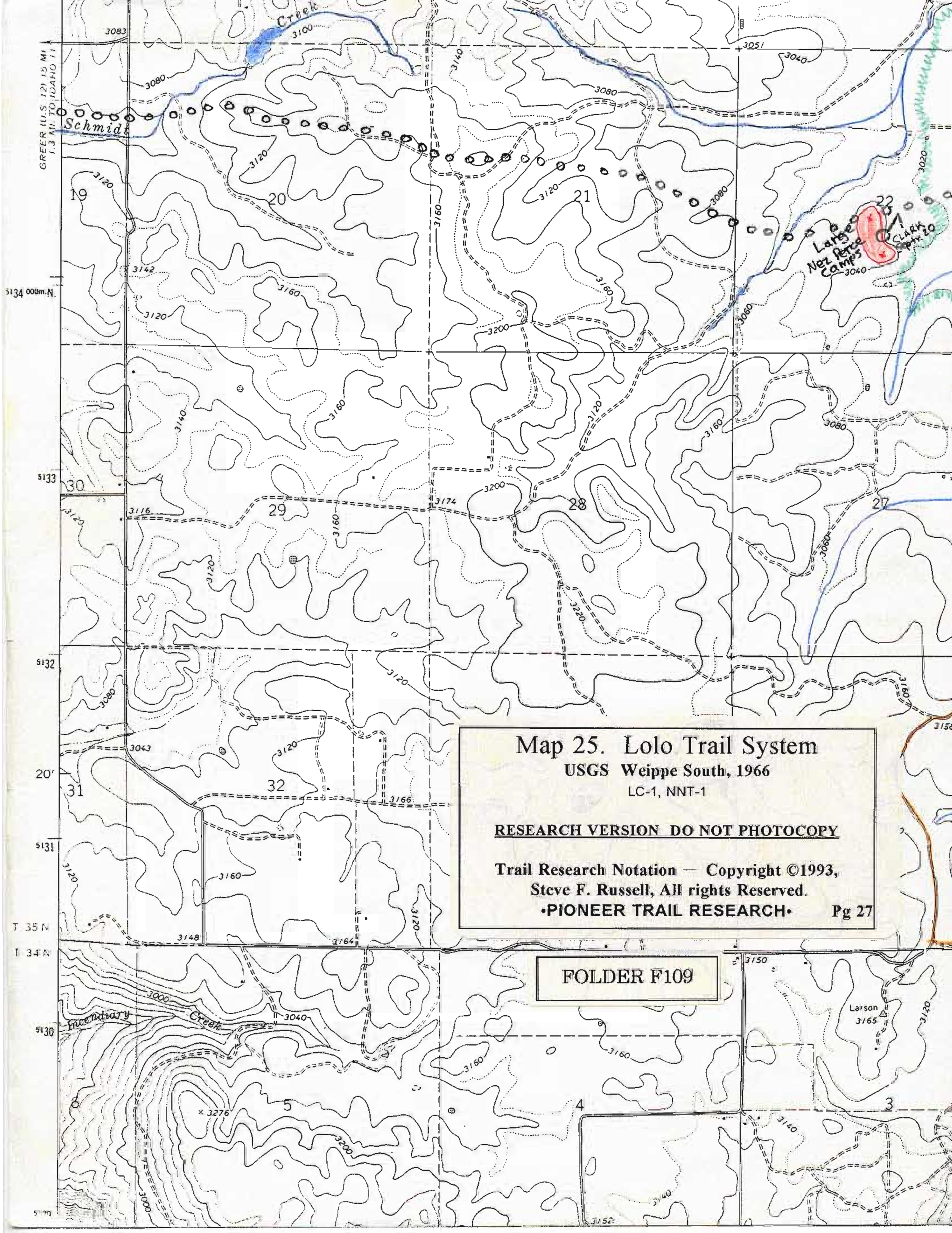

Map 25. Lolo Trail System

USGS Weippe South, 1966

LC-1, NNT-1

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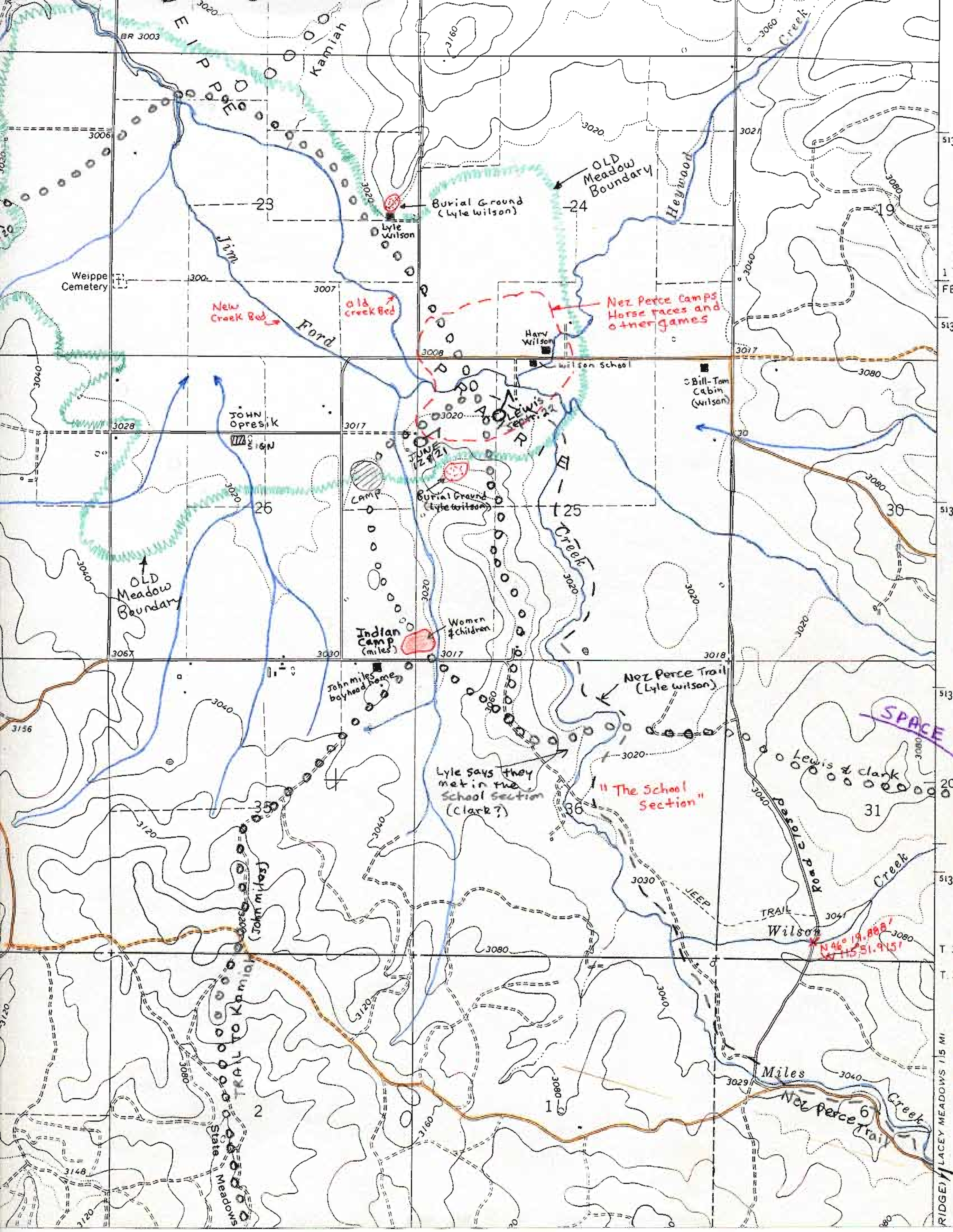
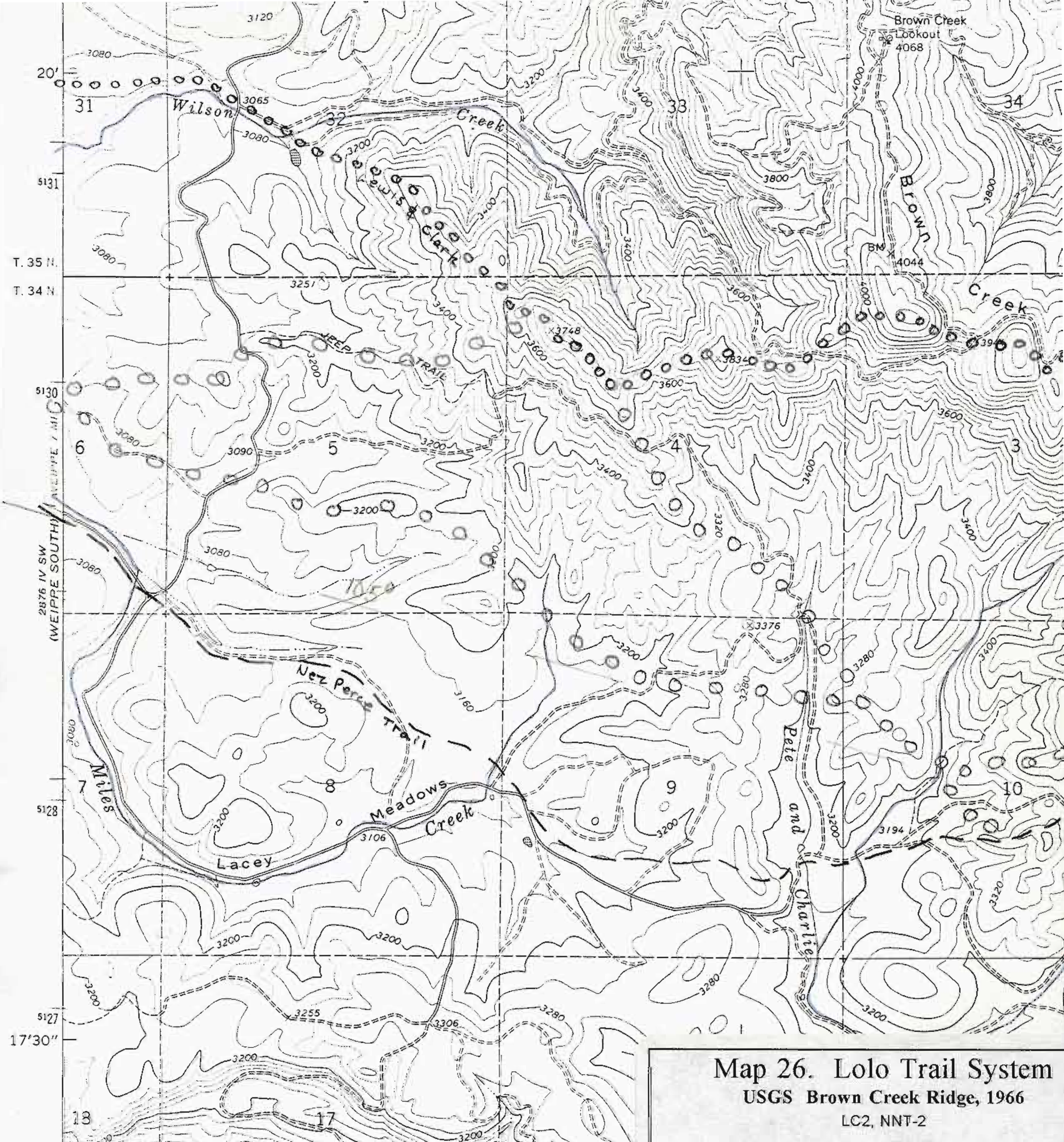

WEIPPE
Kamiah
BR 3003
3020
3160
3060
Creek
3006
3020
3021
Heywood
OLD Meadow Boundary
Burial Ground (Lyle Wilson)
Lyle Wilson
23
24
19
3080
3040
Weippe Cemetery
300
Jim
Ford
3007
New Creek Bed
old creek Bed
Nez Perce Camps Horse races and other games
Harv Wilson
Wilson School
3008
3017
3040
3080
Bill-Tom Cabin (Wilson)
PRAIRIE
Lewis Sept. 21
JOHN Opresik
SIGN
3028
3017
3020
JUNE 12 & 21
30
CAMP
Burial Ground (Lyle Wilson)
26
25
30
3020
3080
Creek
OLD Meadow Boundary
3040
3020
Indian Camp (miles)
Women & children
3067
3030
3017
3018
John miles boyhood home
3060
Nez Perce Trail (Lyle Wilson)
3156
3040
3020
SPACE
Lewis & clark
3080
Lyle says they met in the School Section (Clark?)
"The School Section"
35
36
31
3120
3040
Road closed
3030
JEEP
TRAIL
Creek
3041
Wilson
N 46° 19.888' W 115° 31.915'
3080
3080
(John miles)
TRAIL TO Kamiah
3120
3040
3120
3080
3080
3029
Miles
3040
Creek
Nez Perce Trail
2
1
6
3160
State Meadows
3148
3120
LACEY MEADOWS 1.5 MI
RIDGE



Map 26. Lolo Trail System

USGS Brown Creek Ridge, 1966

LC2, NNT-2

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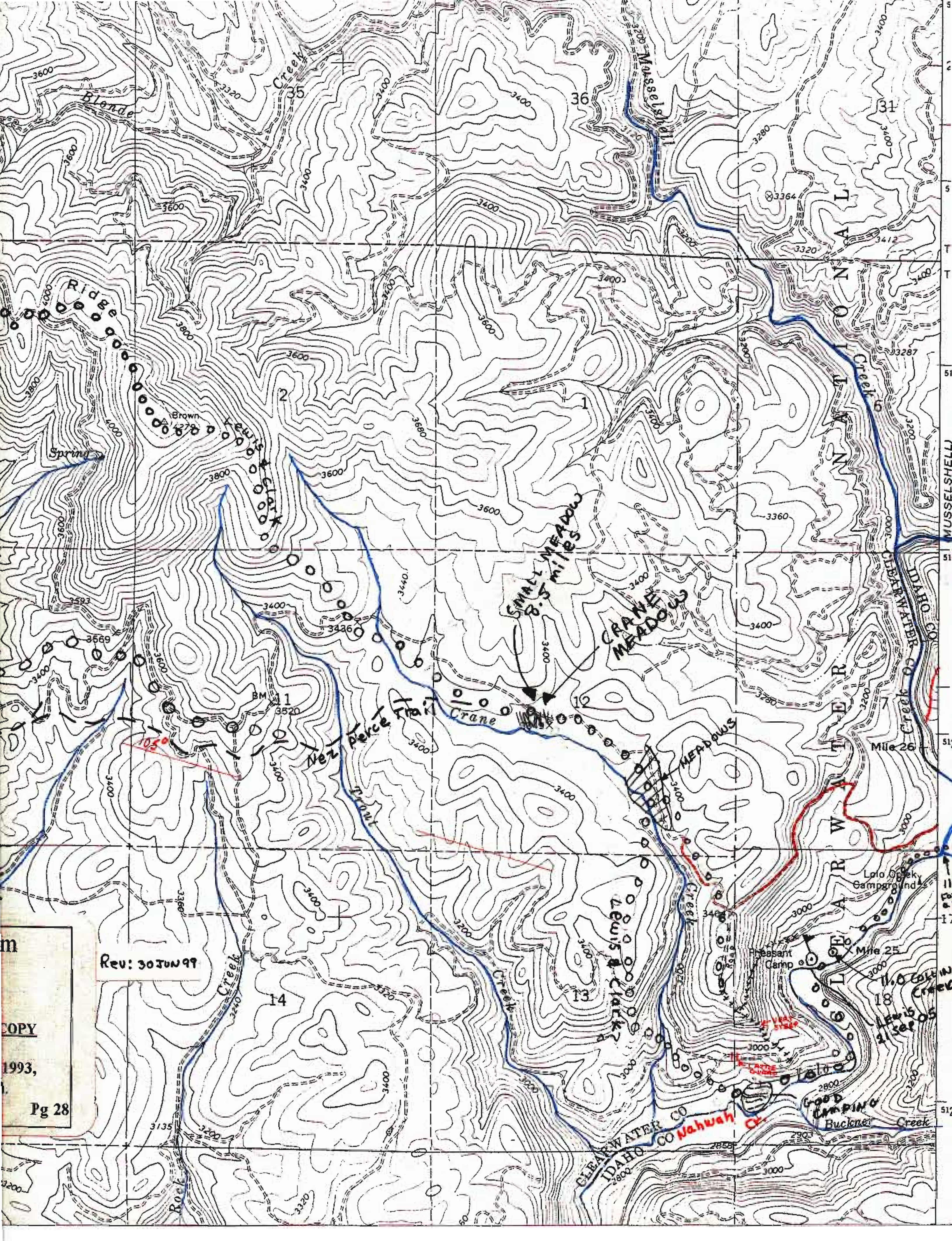
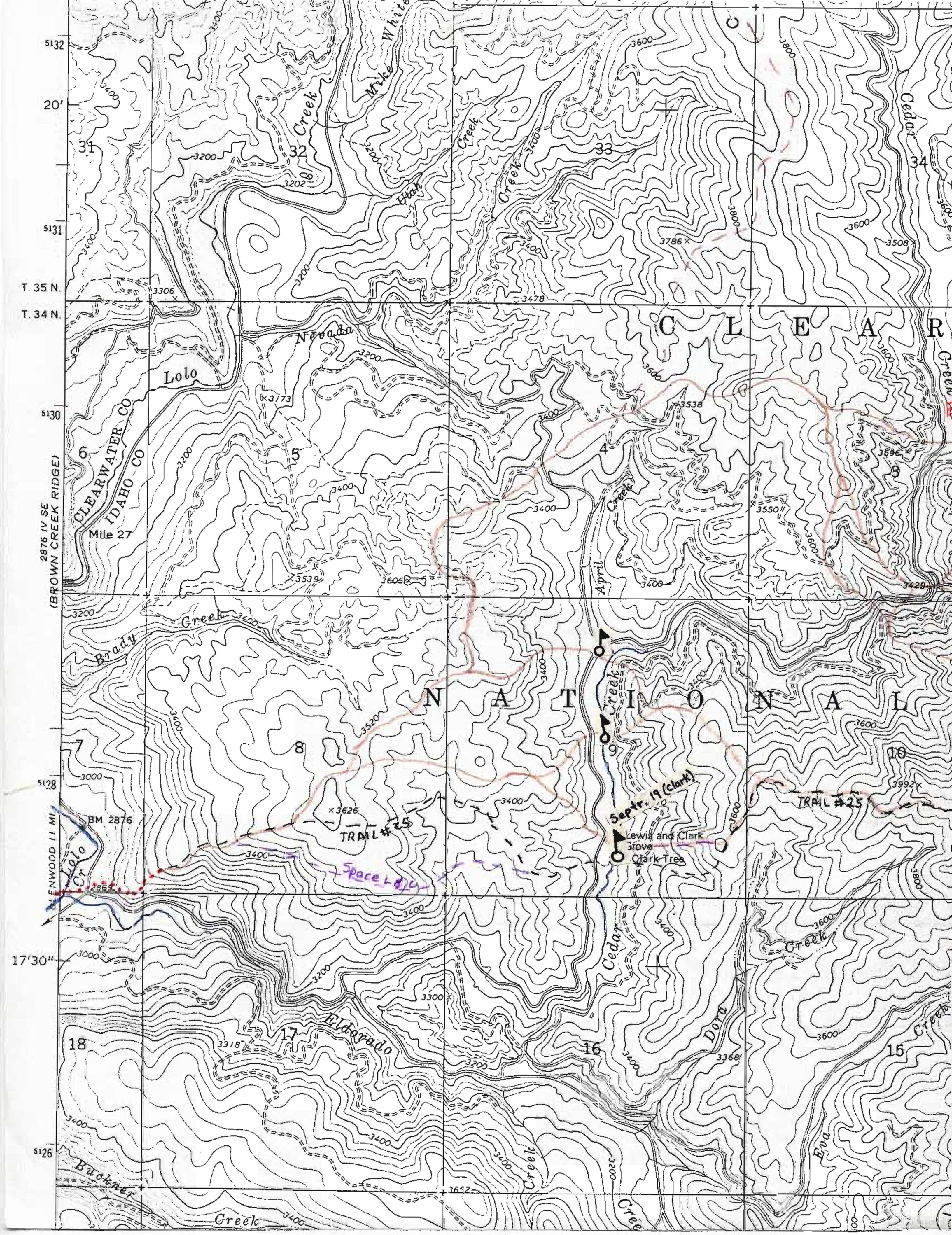

Blonde Creek
35
36
31
Musselshell
Ridge
Brown
Lewis & Clark
Spring
2
1
6
Creek
MUSSELSHELL
CLEARWATER
IDAHO CO
SMALL MEADOW
0.5 miles
CRANE MEADOW
Nez Perce Trail
Crane
11
BM 3520
12
7
105°
MEADOWS
Mile 26
Trout Creek
Creek
Lewis & Clark
WALTON NATIONAL LOLO
Lolo Creek Campground
Pheasant Camp
Mile 25
11.0 Collins Creek
18
Lewis 21 Sep 05
VERY STEEP
CATTLE GUARD
Lolo
GOOD CAMPING
Buckner Creek
Nahwah Cr.
CLEARWATER CO
IDAHO CO
14
13
Rock Creek
Rev: 30JUN99
m
COPY
1993,
Pg 28


5132
20'
31
32
33
34
Creek
Mike White
Utah Creek
Creek
Cedar
C
5131
T. 35 N.
T. 34 N.
C L E A R
Nevada
Lolo
CLEARWATER CO
IDAHO CO
2876 IV SE
(BROWN CREEK RIDGE)
Mile 27
5130
6
5
4
3
April Creek
Brady Creek
N A T I O N A L
7
8
9
10
5128
Creek
Septr. 19 (Clark)
TRAIL #25
Space L #20
Lewis and Clark Grove
Clark Tree
BM 2876
Lolo Cr
GLENWOOD 11 MI
17'30"
Cedar
Creek
Eldorado
Dora
18
17
16
15
Eva
5126
Buckner
Creek
Creek
3200
3400
3600
3800
3202
3306
3478
3786
3508
3173
3538
3596
3550
3539
3605
3429
3520
3626
3992
3300
3318
3368
3652

Map 27. Lolo Trail System

USGS Musselshell, 1966

LC-3, NNT-3

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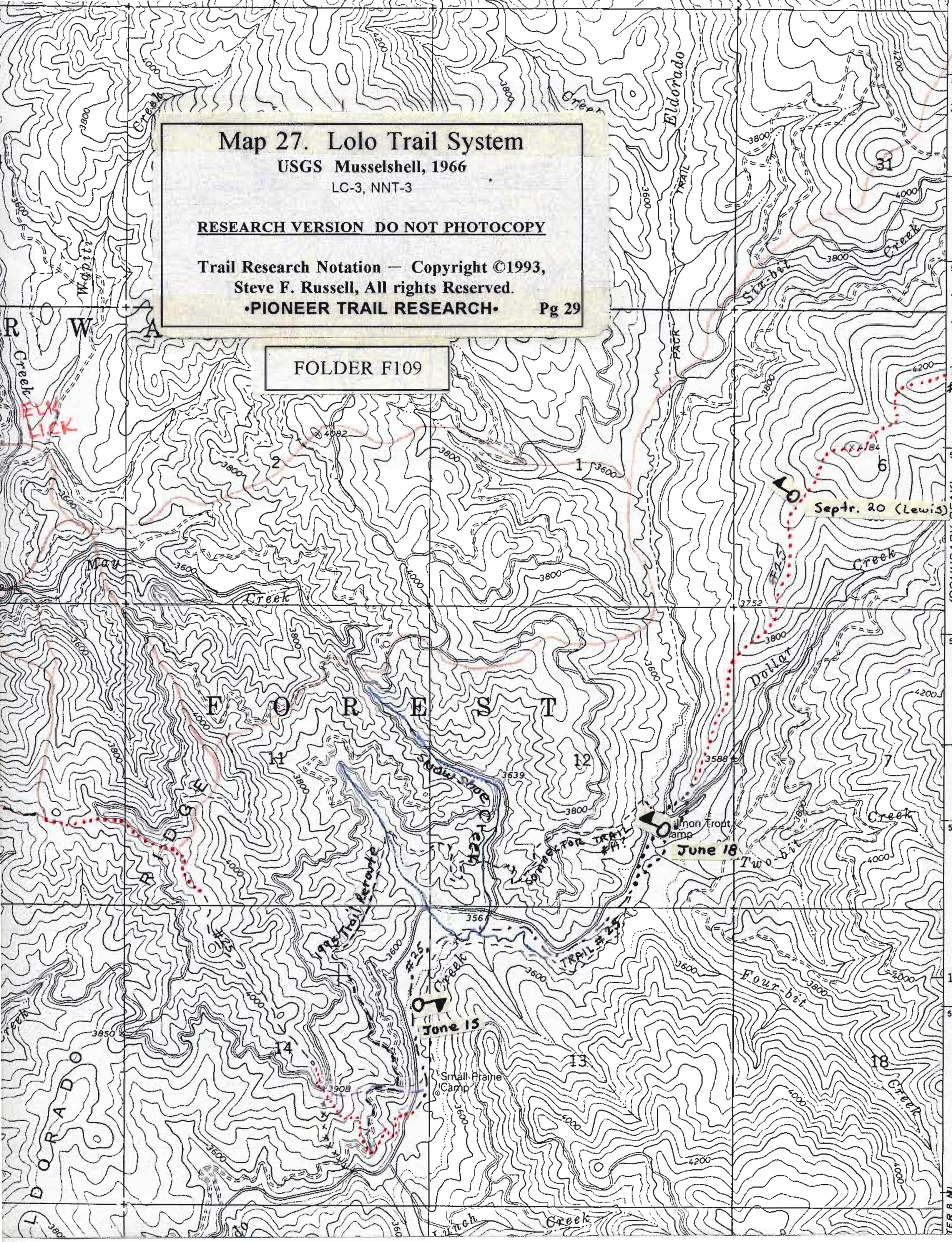
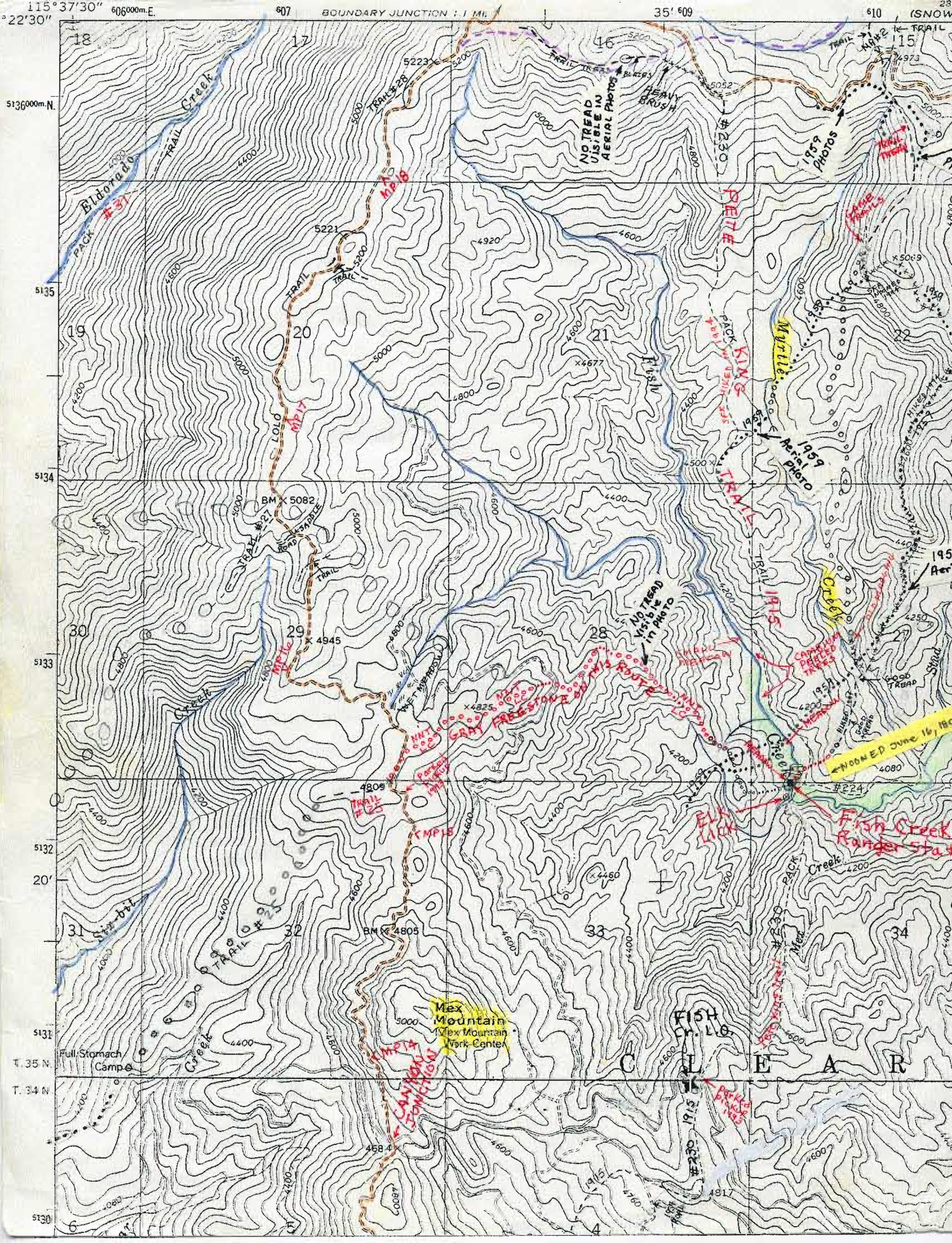
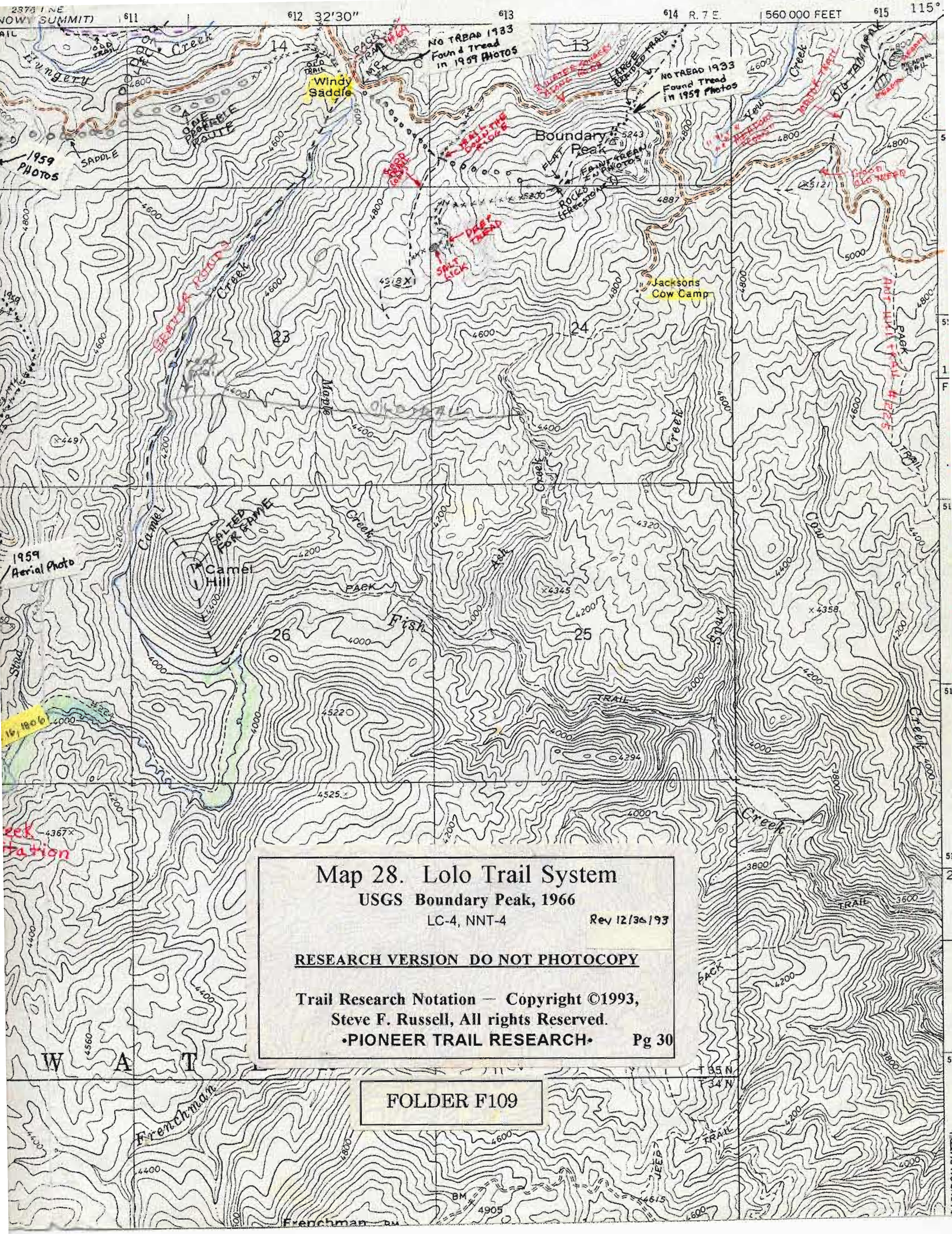



115°37'30"
606000m.E.
607
BOUNDARY JUNCTION 1.1 MI.
35' 609
610
(SNOW
TRAIL
5136000m.N.
5135
5134
5133
5132
5131
5130
20'
T. 35 N.
T. 34 N.
18
17
16
15
19
20
21
22
30
29
28
27
31
32
33
34
6
5
4
Eldorado
Creek
PACK TRAIL
#31
TRAIL #28
5223
5221
5200
MP18
MP17
MP16
MP15
MP14
LOLO TRAIL
TRAIL
TRAIL #27
BM 5082
SADDLE
ROAD
29 × 4945
WET MEADOW
× 4825
4809
TRAIL #25
BM 4805
TRAIL #25
NNT
GRAY FREESTONE ON THIS ROUTE
NO TREAD visible in PHOTO
NO TREAD VISIBLE IN AERIAL PHOTOS
HEAVY BRUSH
BLAZES
TRAIL TREAD
5052
#230
PETE KING PACK TRAIL
1959 PHOTOS
1959 Aerial PHOTO
Myrtle
Creek
Fish Creek
TRAIL 1915
× 4677
4500 ×
× 5069
CAMPING PEELED TREES
GOOD TREAD
ELK LICK
NOONED June 16, 18
#224
Fish Creek Ranger Sta
PACK Creek
× 4460
#230
Mex Mountain
Mex Mountain Work Center
FISH Cr. L.O.
C L E A R
Full Stomach Camp
CANNON JUNCTION
4684
4817
#230
1915
Creek
4920
4600
4400
4200
5000
4800
4250
4080



Map 28. Lolo Trail System

USGS Boundary Peak, 1966

LC-4, NNT-4 Rev 12/30/93

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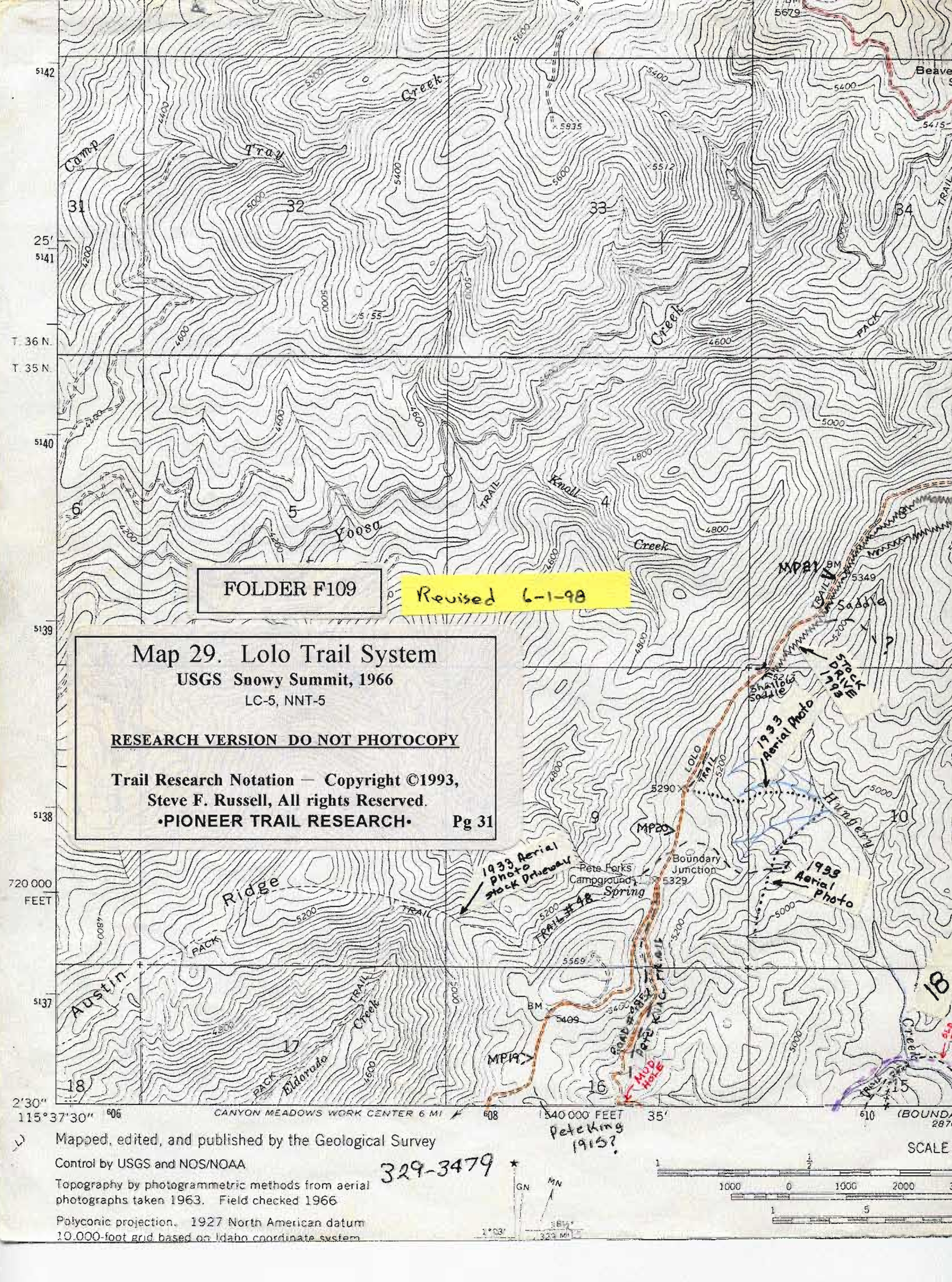

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Map 29. Lolo Trail System

USGS Snowy Summit, 1966

LC-5, NNT-5

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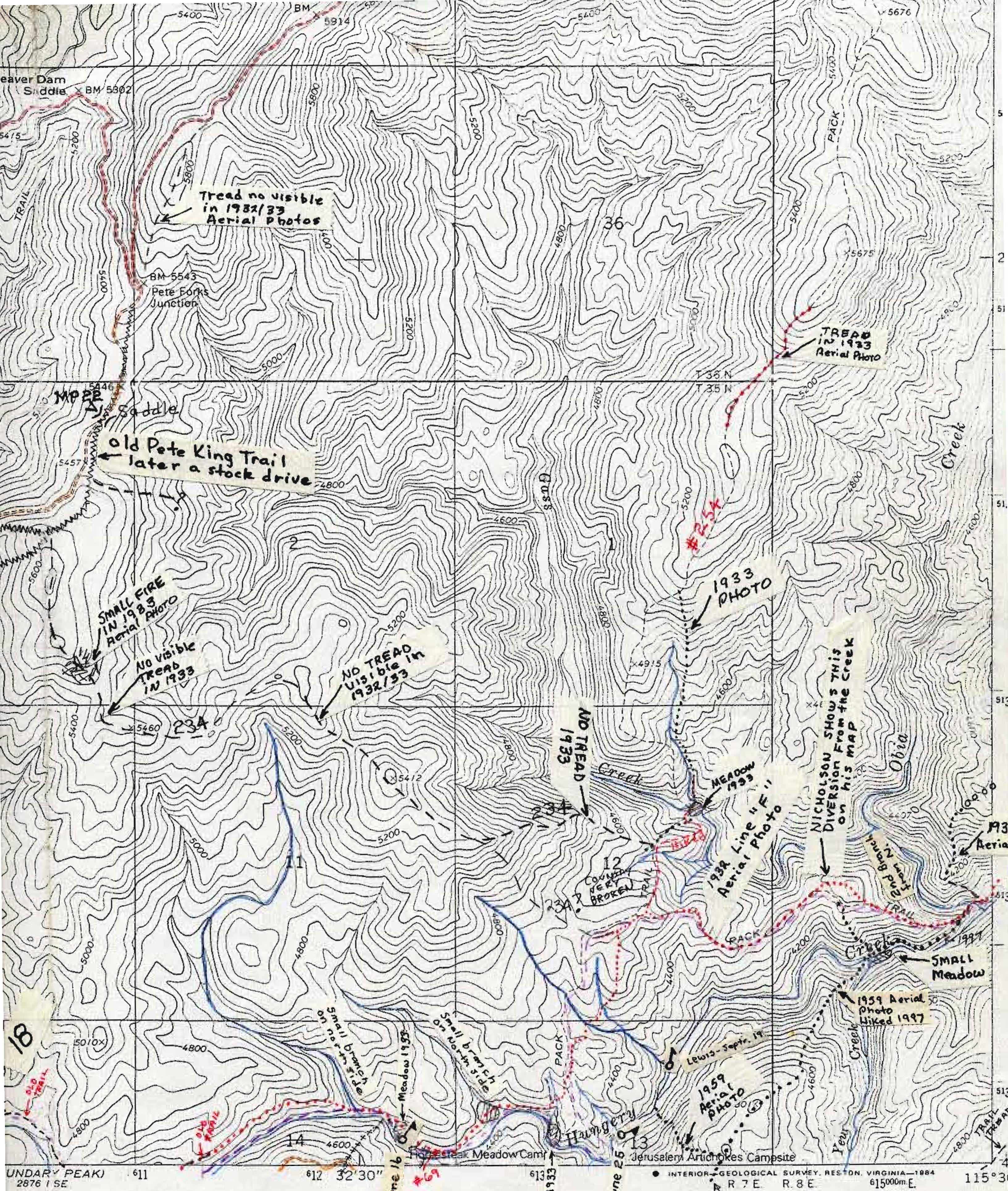
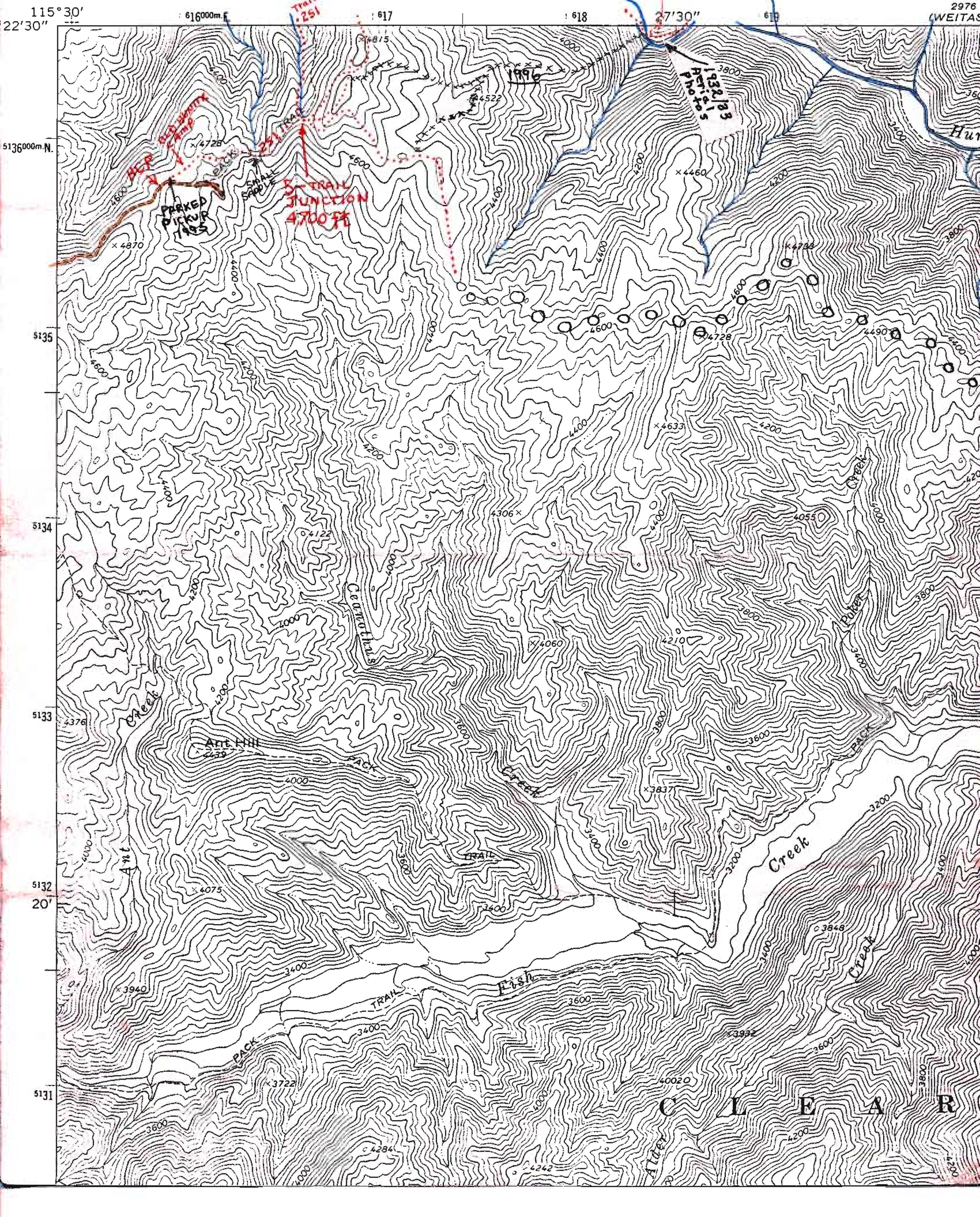
Topography by photogrammetric methods from aerial photographs taken 1963. Field checked 1966

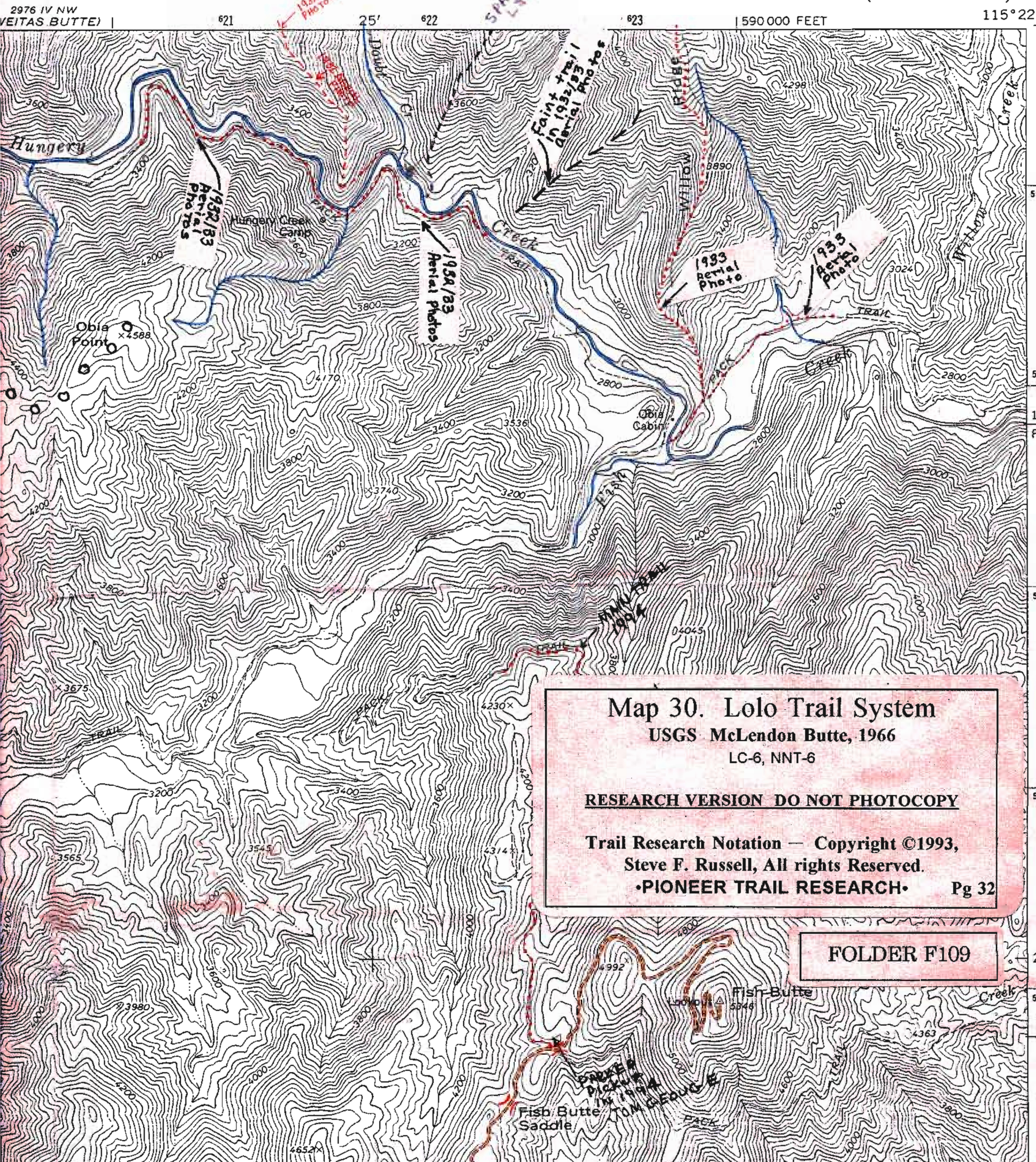
Polyconic projection. 1927 North American datum
10,000-foot grid based on Idaho coordinate system

BM 5914
Beaver Dam Saddle
BM 5302
Tread no visible in 1932/33 Aerial Photos
BM 5543
Pete Forks Junction
36
5676
5675
PACK
TRAIL
TREAD IN 1933 Aerial Photo
T 36 N
T 35 N
MPPE
Saddle
5440
5457
Old Pete King Trail later a stock drive
Guss
Creek
2
1
#25k
1933 PHOTO
SMALL FIRE IN 1933 Aerial PHOTO
NO visible TREAD IN 1933
NO TREAD Visible in 1932/33
5460
234
×4915
5412
NO TREAD 1933
Creek
MEADOW 1933
1938 Line "F" Aerial Photo
NICHOLSON SHOWS THIS DIVERSION from the Creek on his MAP
Obia
2nd Branch from N.
1933 Aerial
11
12
COUNTY VERY BROKEN
TRAIL
234?
PACK
TRAIL
Creek
1997
SMALL Meadow
1959 Aerial Photo Hiked 1997
18
5010×
OLD TRAIL
OLD TRAIL
Small branch on north side
Meadow 1933
Small branch on North side
PACK
Lewis - Septr. 19
1959 Aerial PHOTO
Yew Creek
TRAIL TREAD
14
Hungery
13
Horsestock Meadow Camp
Jerusalem Artichokes Campsite
(BOUNDARY PEAK) 2876 I SE
611
612
32'30"
613
INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1984
R 7 E.
R. 8 E.
615000m E.
115°30'
#69
June 16
Meadow 1933
June 25
NO TREAD IN 1933
WINDY Saddle
SCALE 1:24 000
1 MILE
3000
4000
5000
6000
7000 FEET
1 KILOMETER
ROAD CLASSIFICATION
Unimproved dirt

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



MC LENDON BUTTE QUADRANGLE
IDAHO – IDAHO CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Map 30. Lolo Trail System

USGS McLendon Butte, 1966

LC-6, NNT-6

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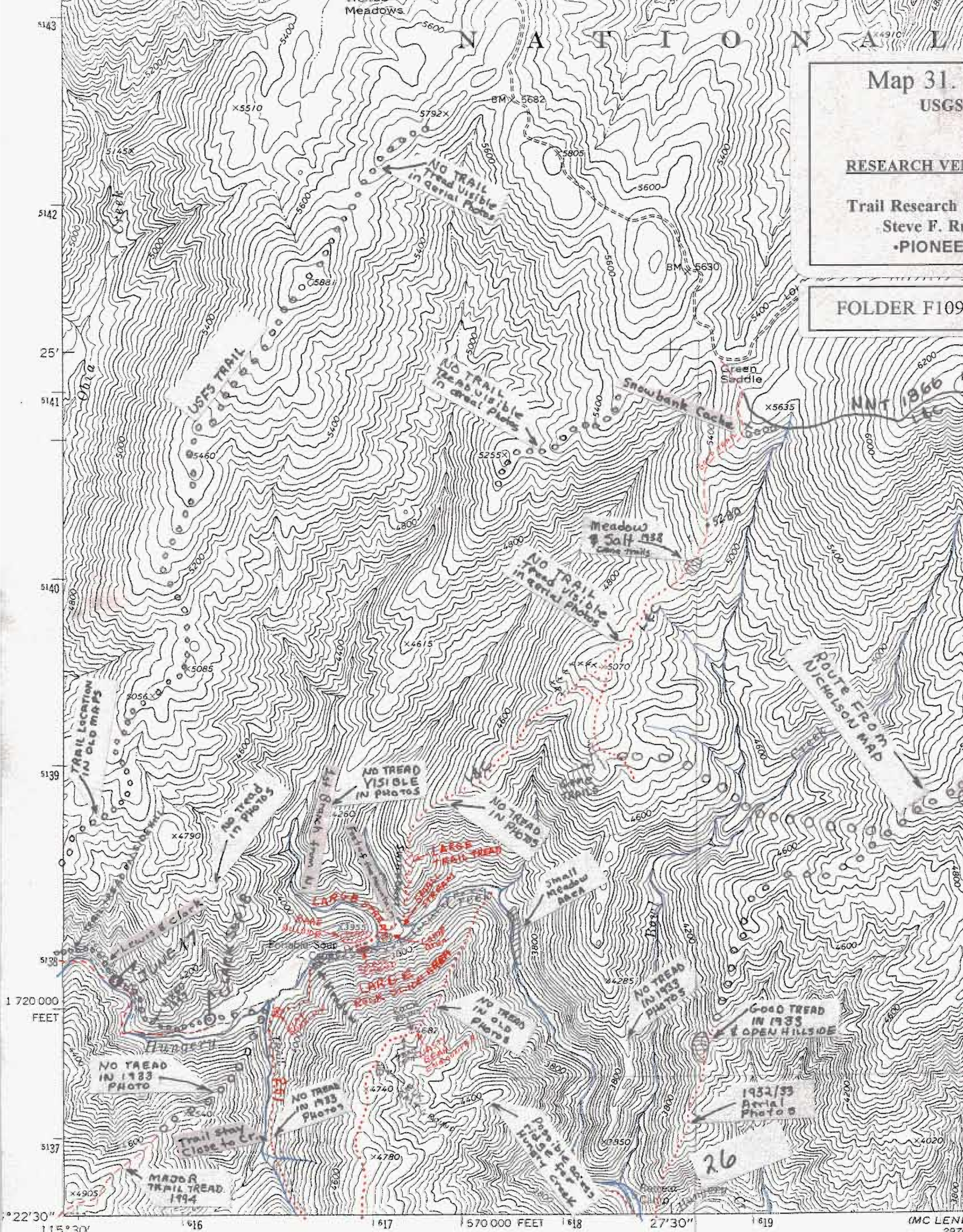

Map 31.
USGS

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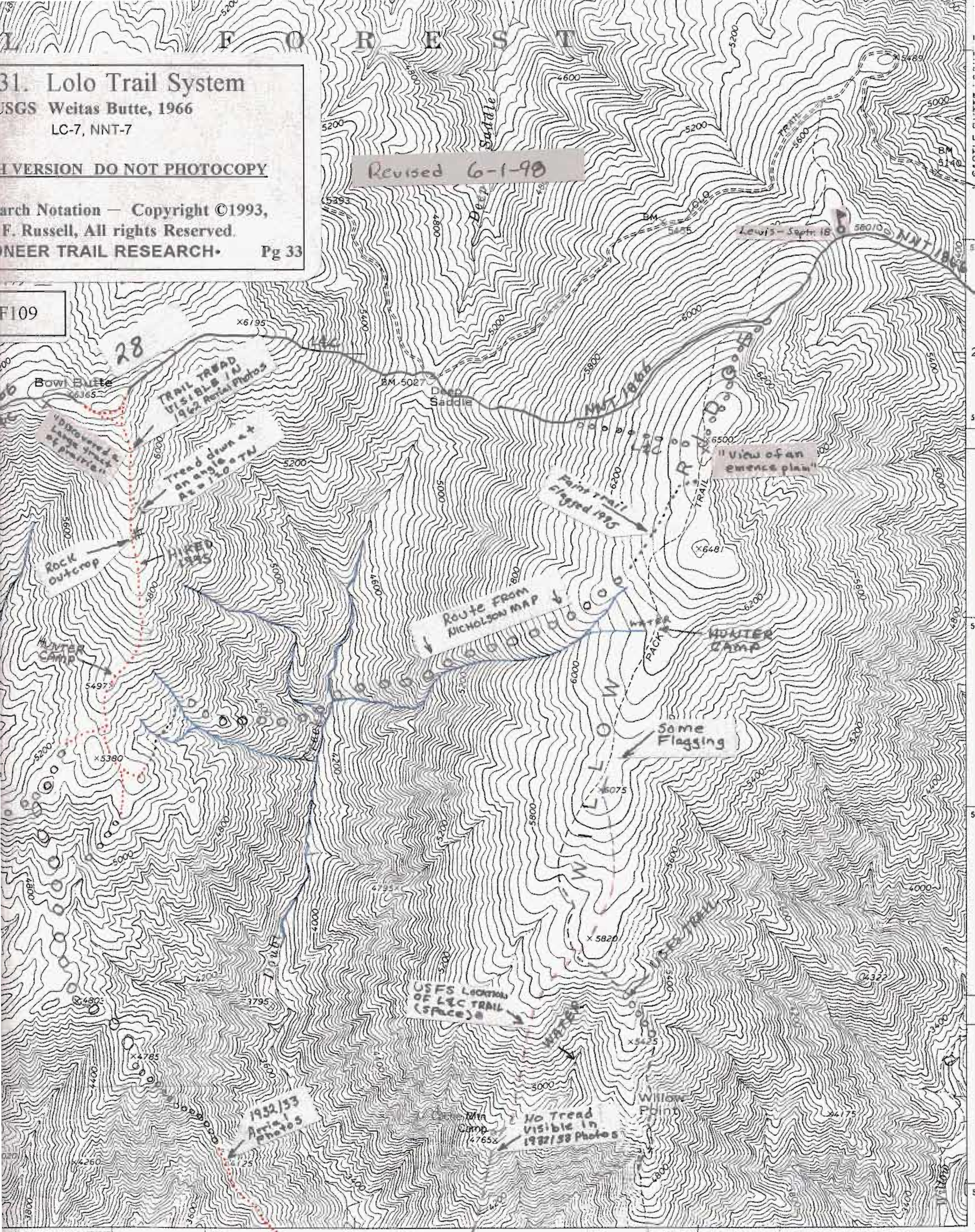

31. Lolo Trail System

USGS Weitas Butte, 1966

LC-7, NNT-7

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F109

Revised 6-1-98

MAP SET - FOLDER F109

LOLO TRAIL SYSTEM

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Map Sequence #3, Maps LTS 32-35, Pages 35-38.

1. **Lewis and Clark Route, diversion to Lochsa River and Powell, maps LC 25-28.**

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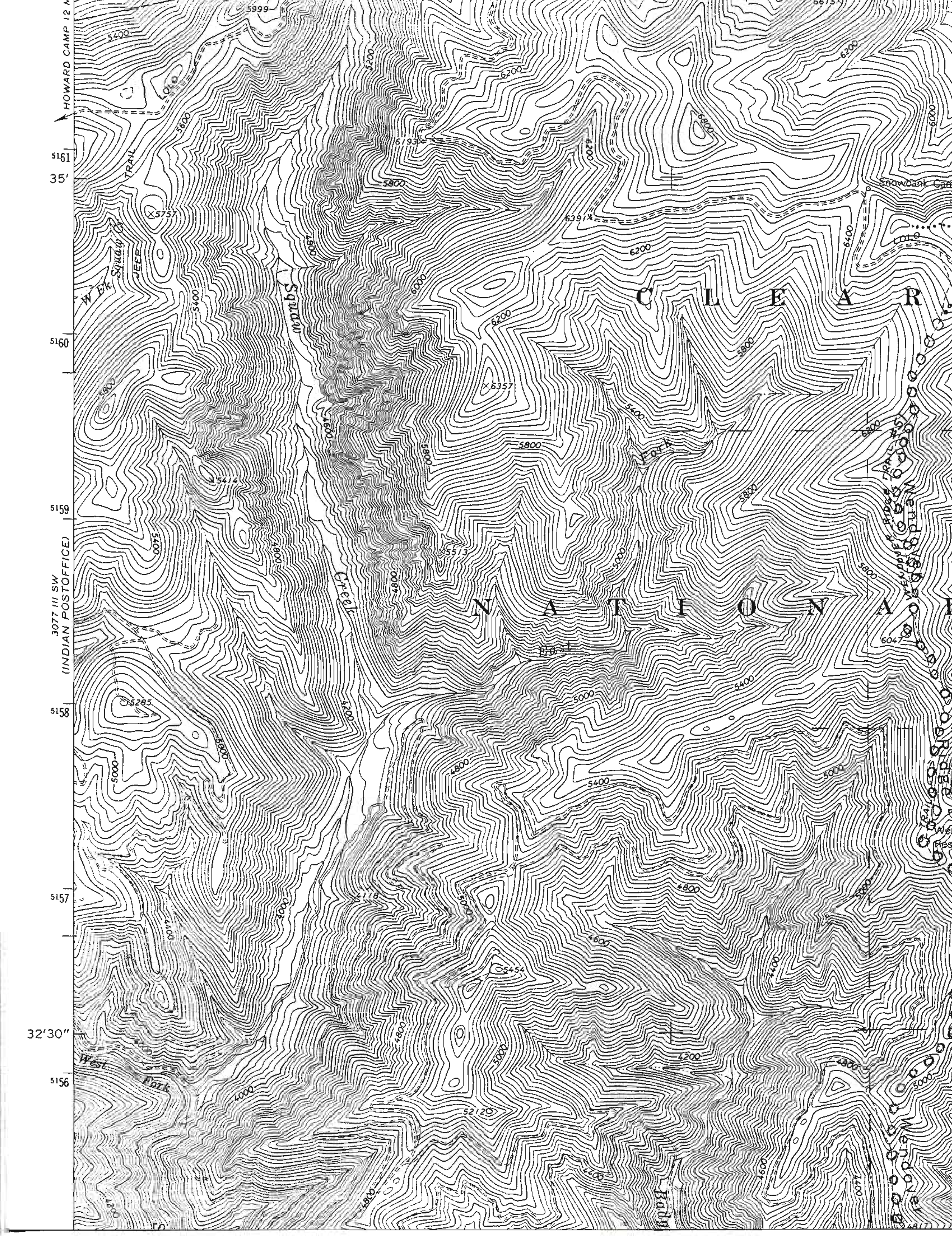
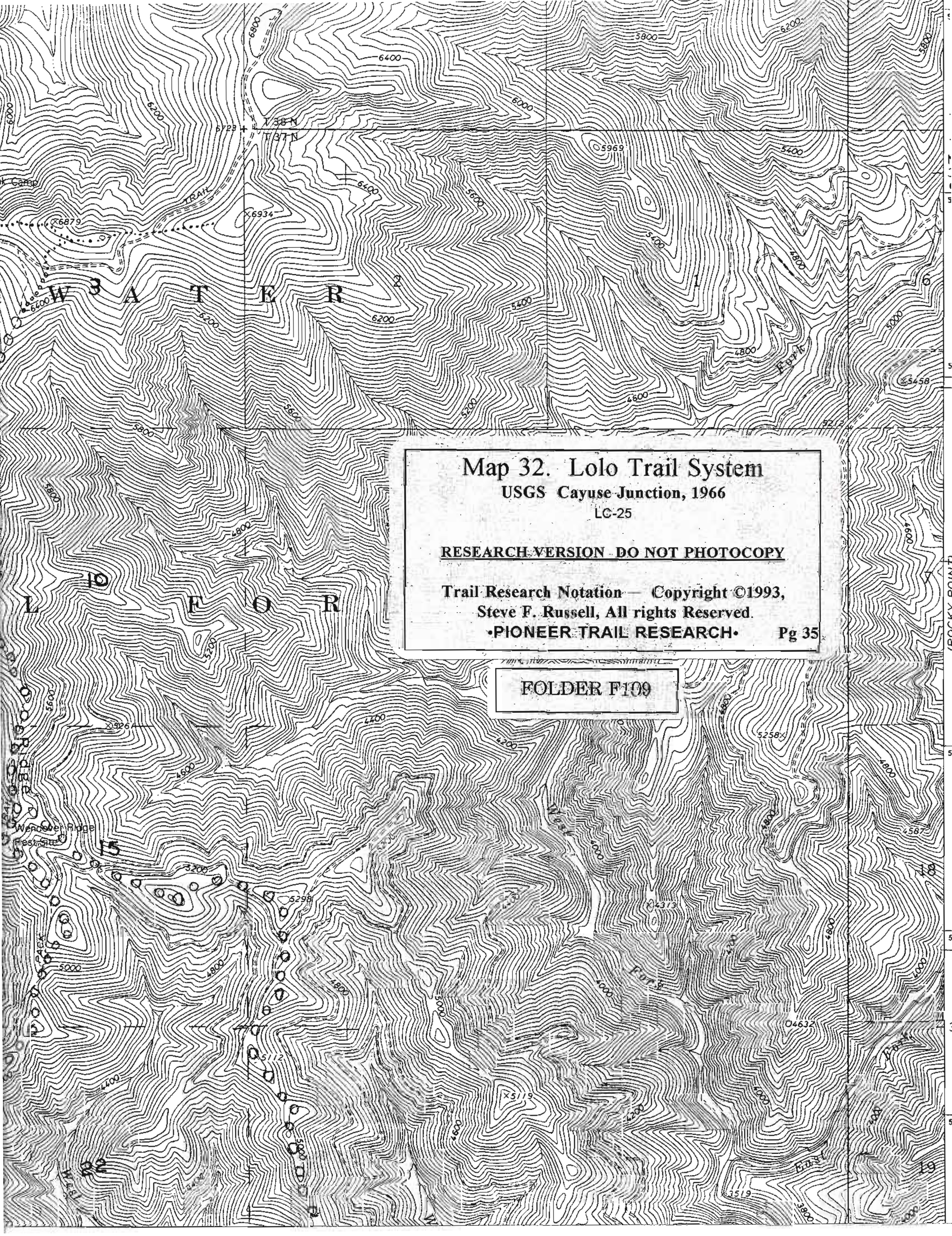

HOWARD CAMP 12 M
TRAIL
JEEP
W Fk. Squaw Cr.
×5757
5999
5400
5600
5200
6200
6193
6391
6800
6000
6400
5800
Snowbank Ca
LOLO
C L E A R
Squaw
Creek
6357
5414
5513
4800
4600
4200
5000
Fork
East
N A T I O N A
6047
WENDOVER RIDGE TRAIL
Wendover
5285
4118
5454
4000
4400
West
Fork
5212
Bald
5161
35'
5160
5159
3077 III SW
(INDIAN POSTOFFICE)
5158
5157
32'30"
5156



Map 32. Lolo Trail System

USGS Cayuse Junction, 1966

LC-25

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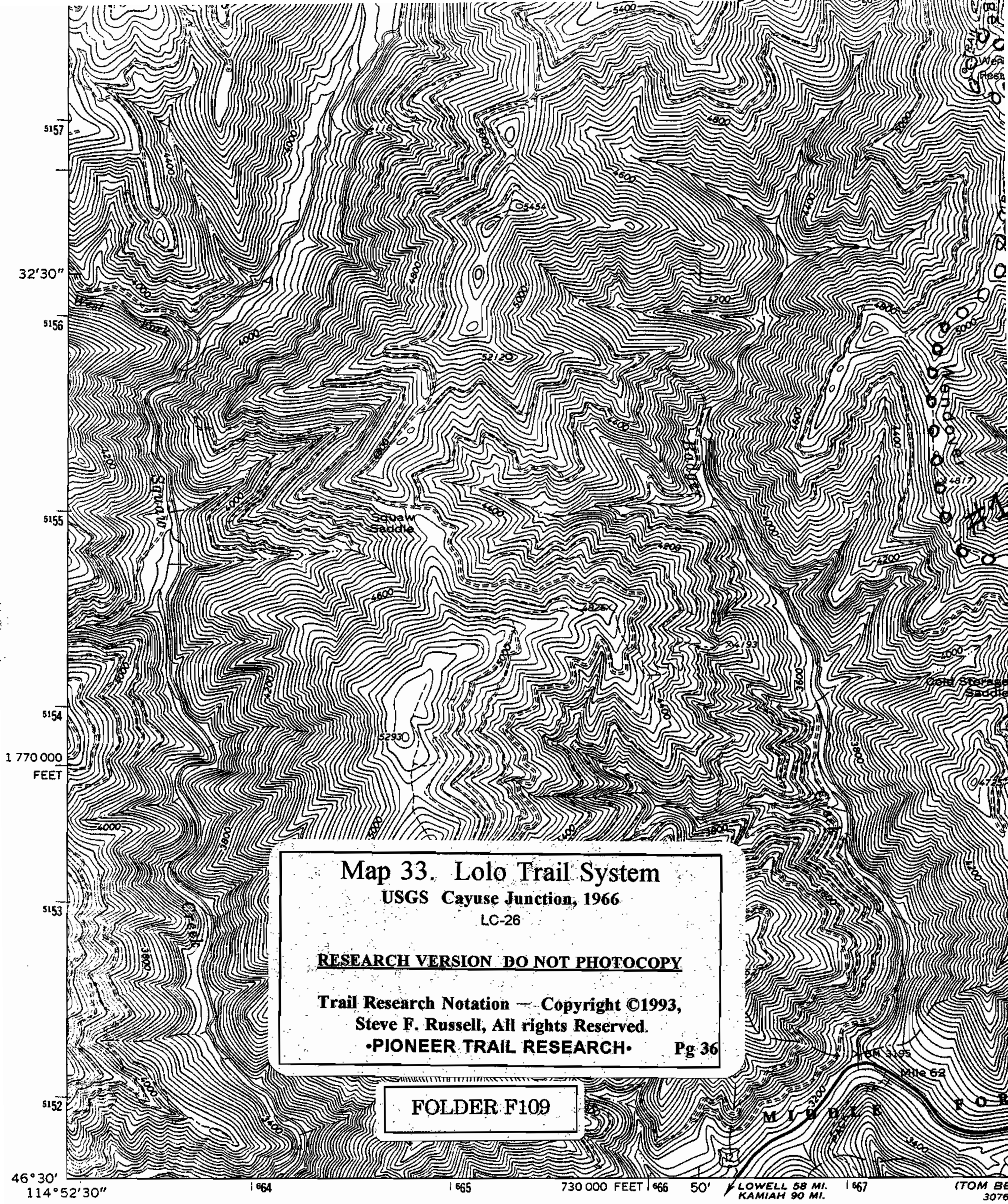
•PIONEER TRAIL RESEARCH•

FOLDER F109



Map 33. Lolo Trail System

USGS Cayuse Junction, 1966

LC-26

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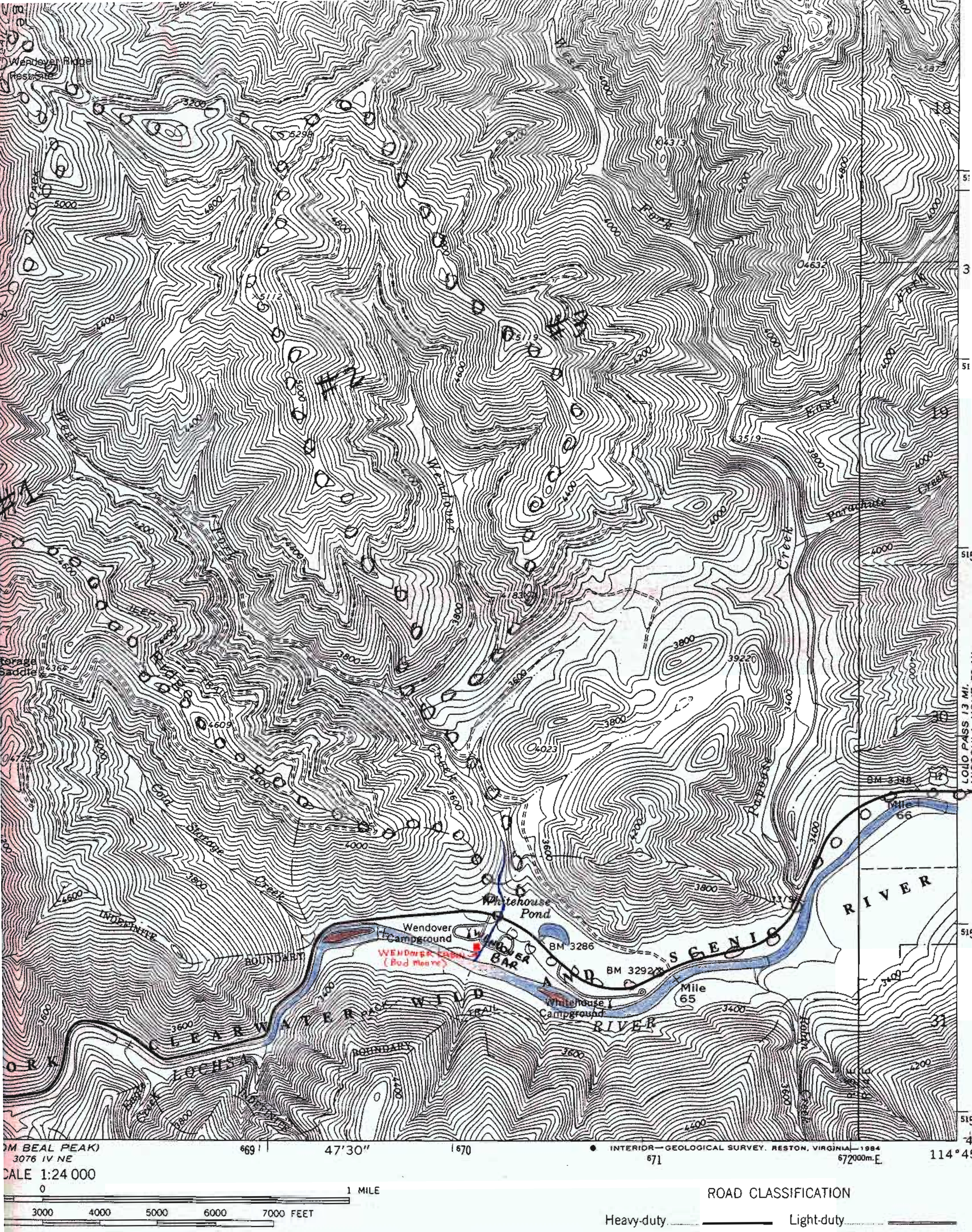
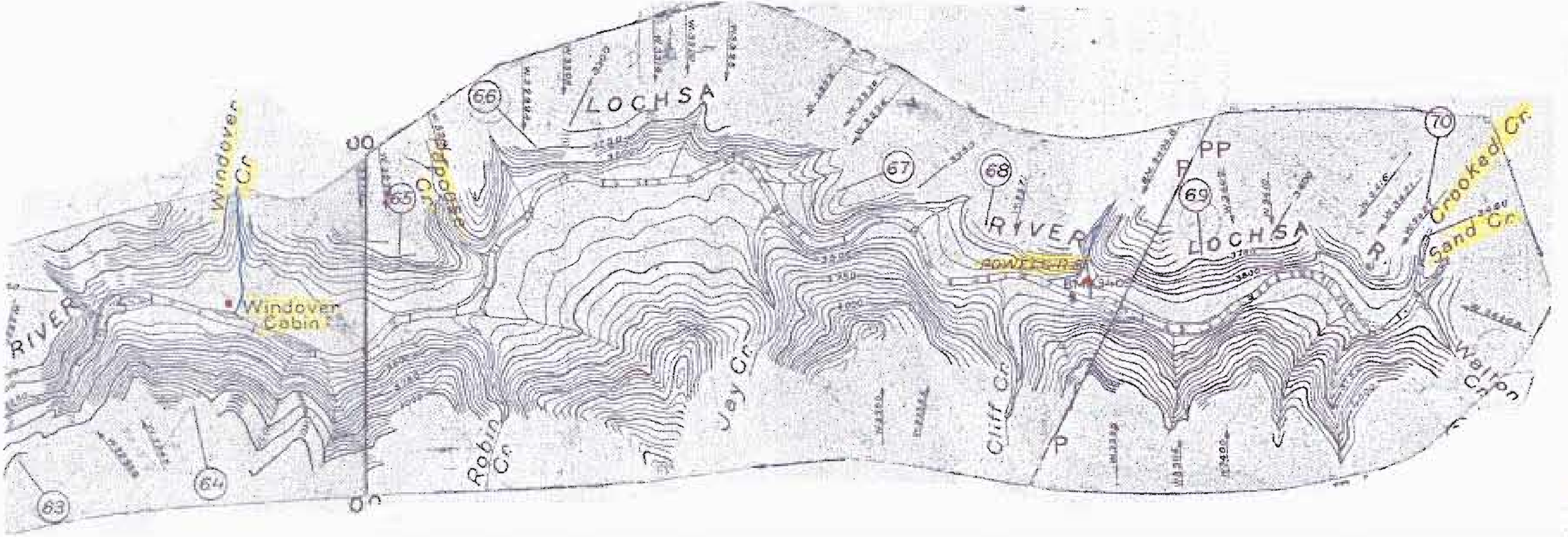
Control by USGS and NOS/NOAA

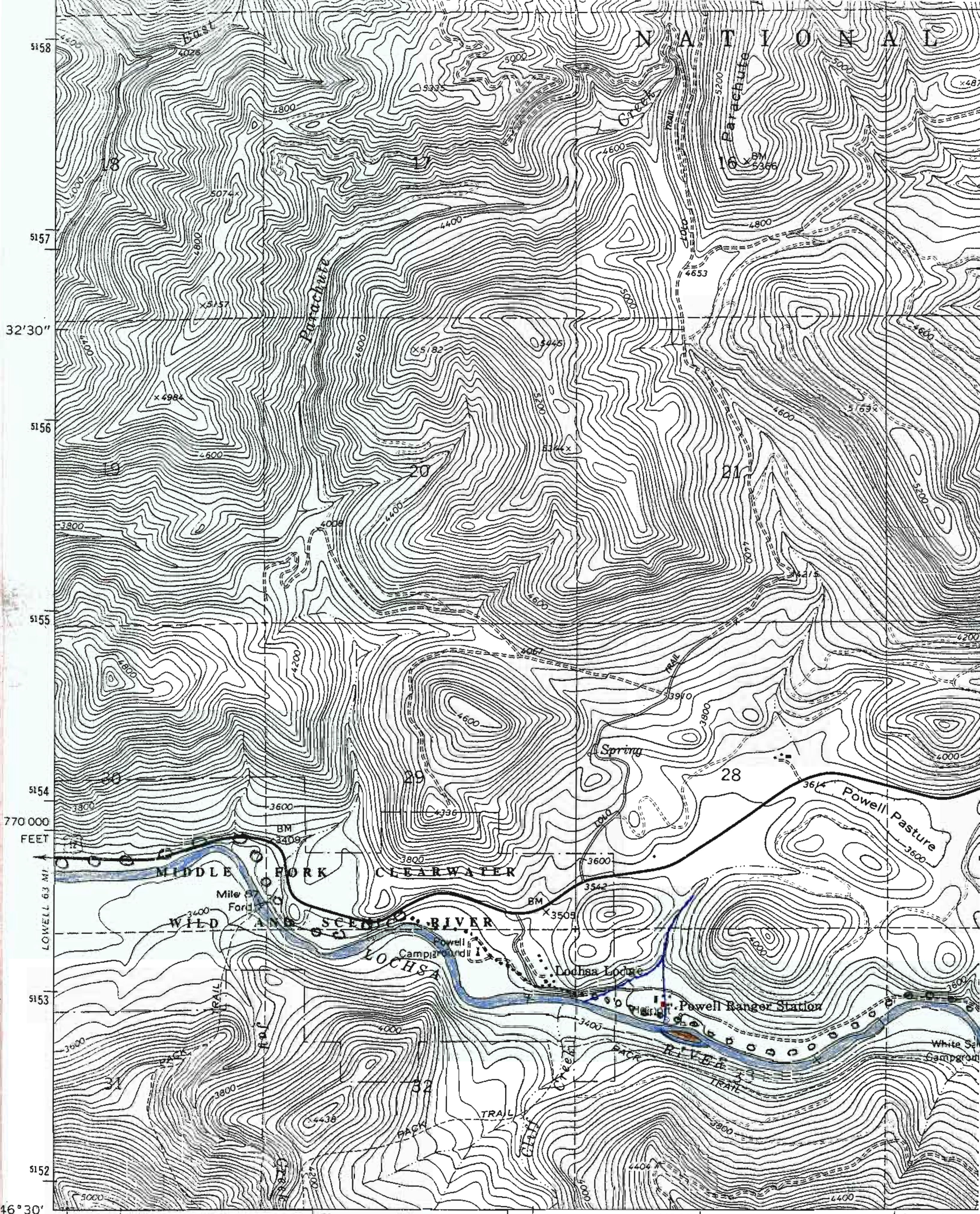
Topography by photogrammetric methods from aerial photographs taken 1965. Field checked 1966

Polyconic projection. 1927 North American datum


Wendover Ridge
Rest Site
West Fork
Wendover
Creek
Whitehouse
Pond
Wendover
Campground
WENDOVER CABIN
(Bud Moore)
WENDOVER BAR
BM 3286
BM 3292
Mile 65
Mile 66
BM 3348
12
Whitehouse
Campground
CLEARWATER
WILD AND SCENIC RIVER
LOCHSA RIVER
PACK TRAIL
BOUNDARY
INDEFINITE
JEEP
Ridge
Storage
Saddle
4364
4609
Cold Storage Creek
Eagle Creek
Papoose Creek
Parachute Creek
East Fork
#1
#2
#3
5298
5112
5119
4313
4632
3519
4183
3922
4023
3219
3800
4000
4200
4400
4600
4800
5000
LOLO PASS 13 MI.
18
19
30
31
(FROM BEAL PEAK)
3076 IV NE
669
47'30"
670
671
672000m.E.
INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1984
114°4
SCALE 1:24 000
0
1 MILE
3000 4000 5000 6000 7000 FEET
1 KILOMETER
ROAD CLASSIFICATION
Heavy-duty
Light-duty
Unimproved dirt



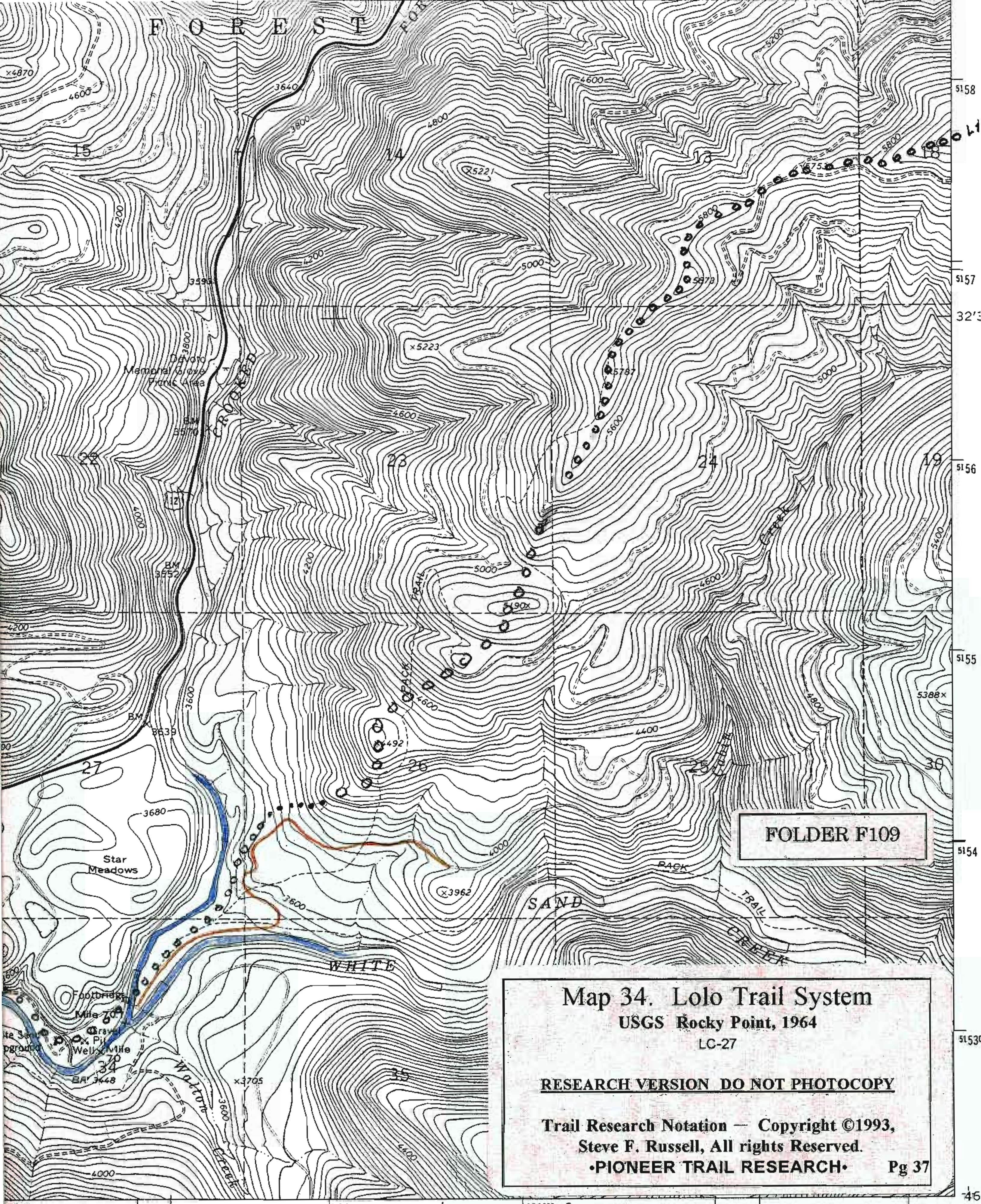
RIVER
Windover Cr
Windover Cabin
63
64
65
66
LOCHSA
Robin Cr
Jay Cr
67
68
RIVER
Cliff Cr
P
PP
P
69
LOCHSA
R
70
Crooked Cr
Sand Cr
Walton Cr



Mapped, edited, and published by the Geological Survey

SCALE 1

FOLDER F109



Map 34. Lolo Trail System

USGS Rocky Point, 1964

LC-27

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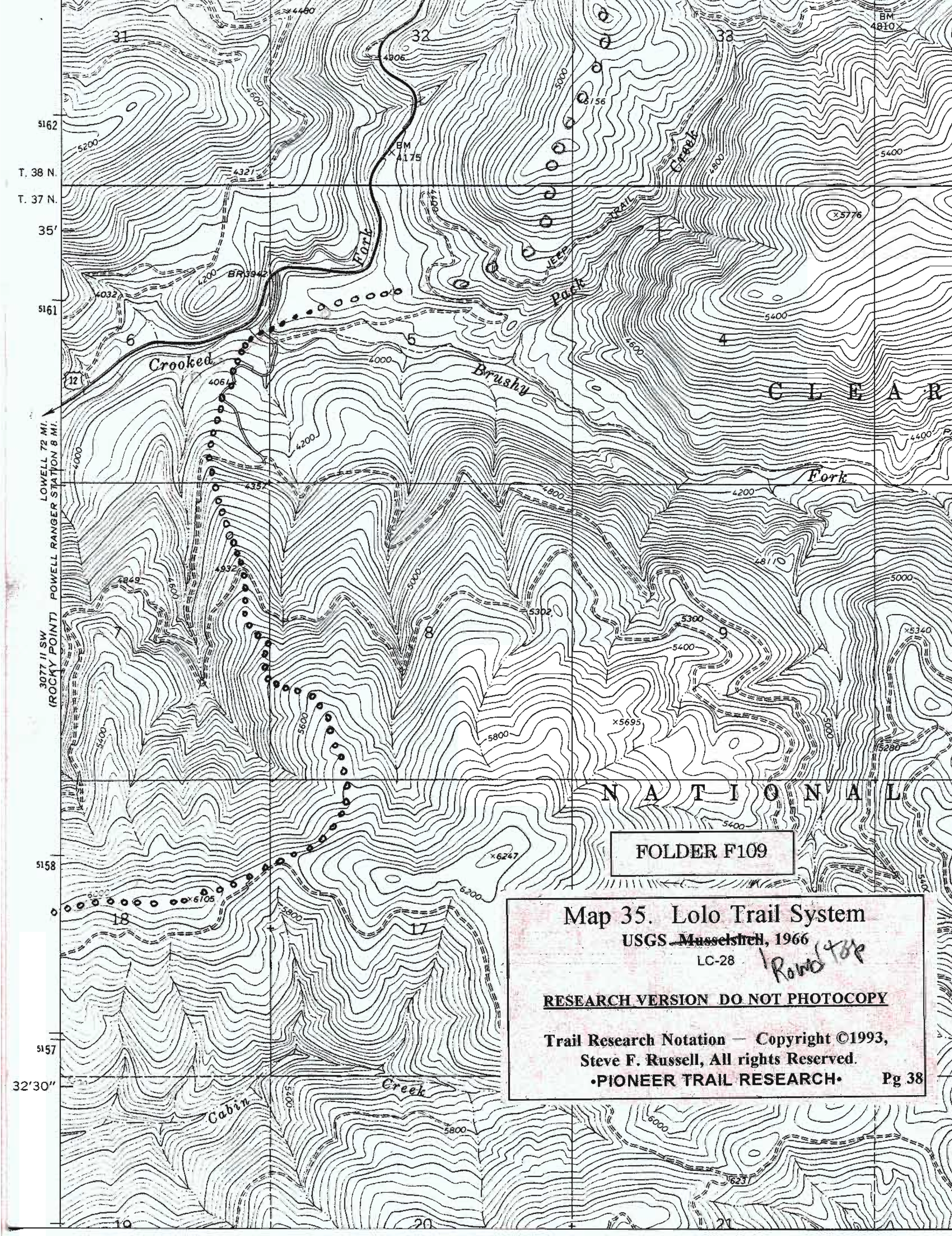
•PIONEER TRAIL RESEARCH• **Pg 37**



FOLDER F109

Map 35. Lolo Trail System

USGS ~~Musselshell~~, 1966 Road Top

LC-28

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MAP SET - FOLDER F109

LOLO TRAIL SYSTEM

RESEARCH MASTERS

Map Sequence #4, Maps LTS 36-43, Pages 40-47.

1. **Original Lolo Motorway Route of 1934-35, Weippe Prairie to Beaver Saddle, maps LM 1-6.**
2. **Original Lolo Motorway Route, Powell Junction to Lochsa Lodge, maps LM 15-16.**

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FOLDER F109

Map 36. Lolo Trail System

USGS Weippe North, 1966

LM-1

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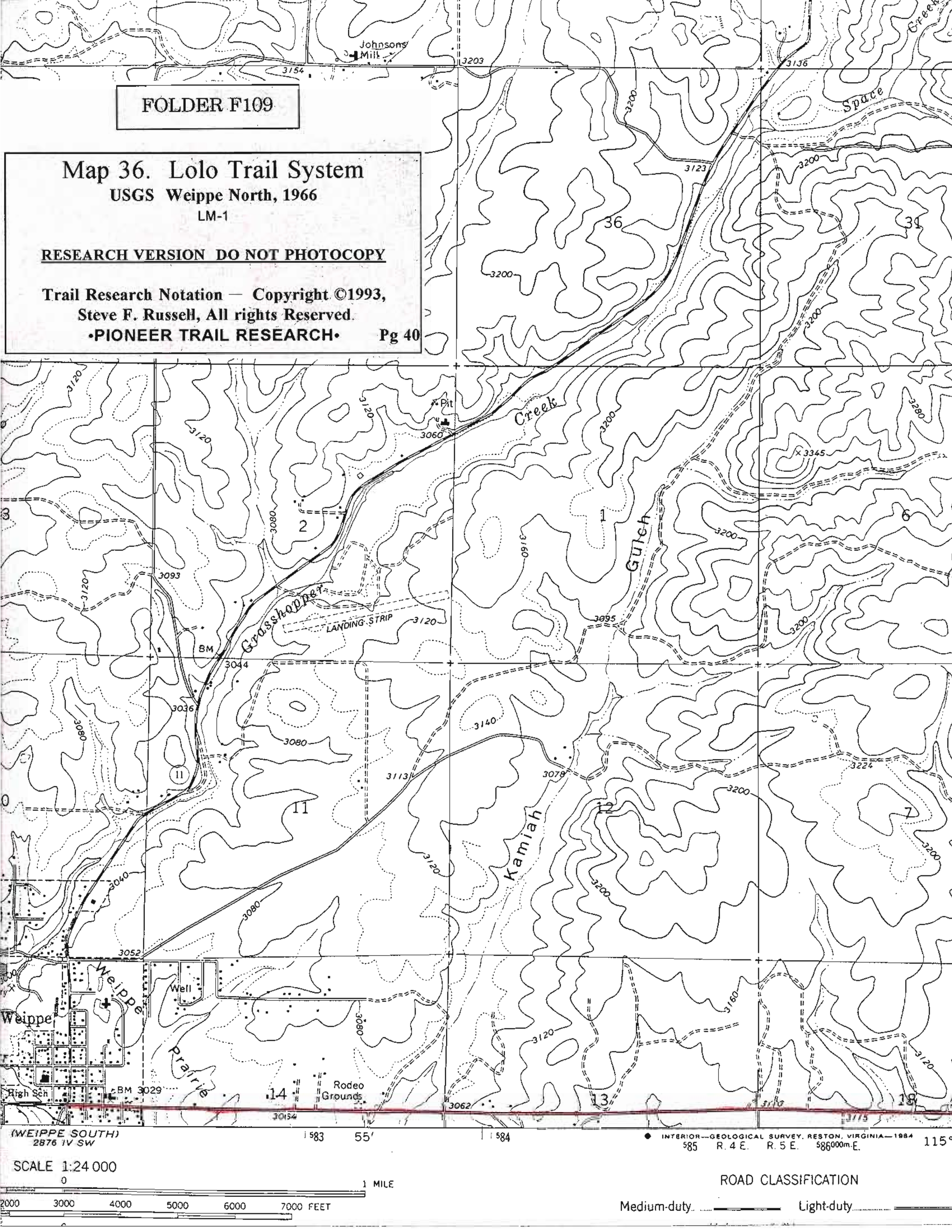
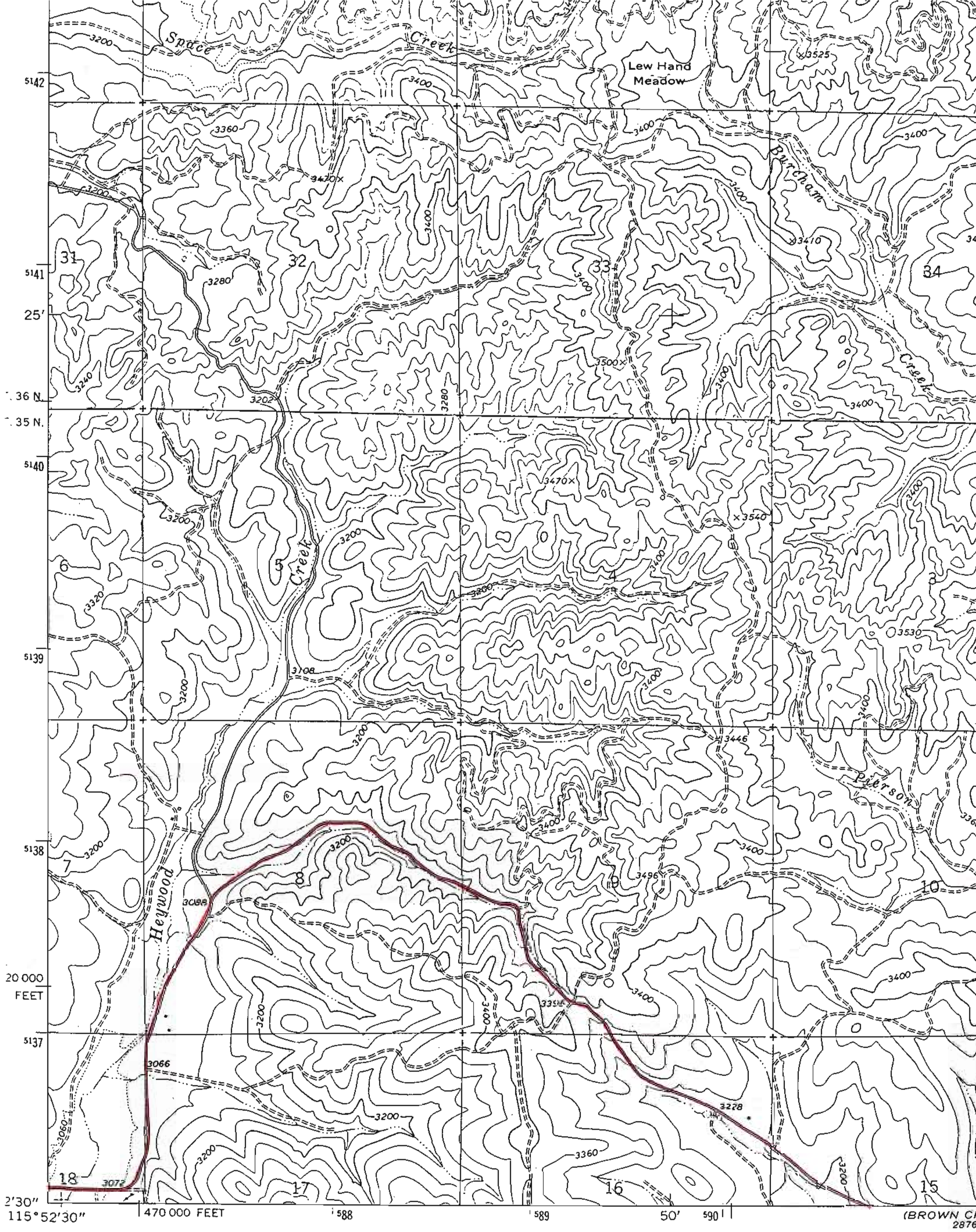
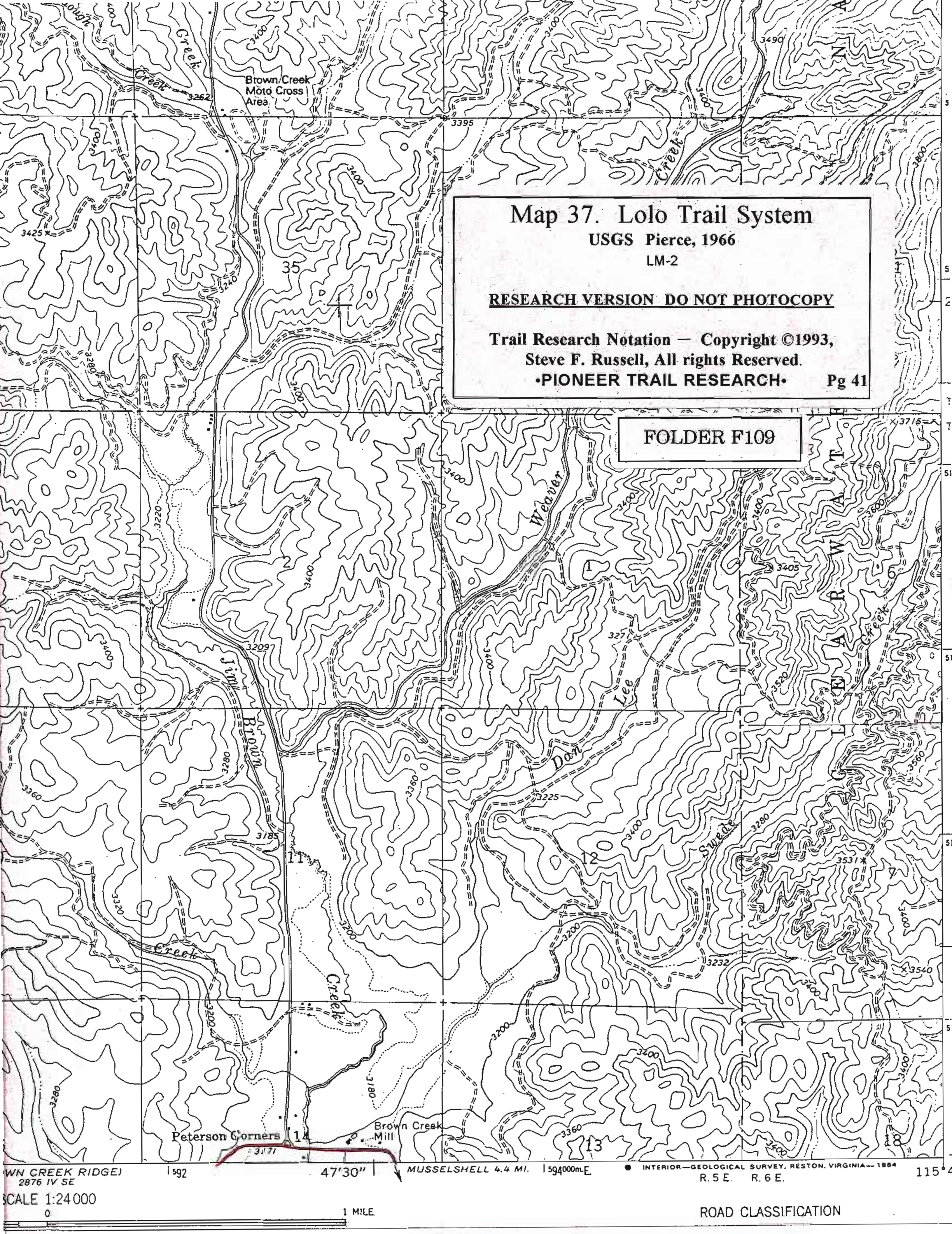
•PIONEER TRAIL RESEARCH• Pg 40





Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA



Map 37. Lolo Trail System

USGS Pierce, 1966

LM-2

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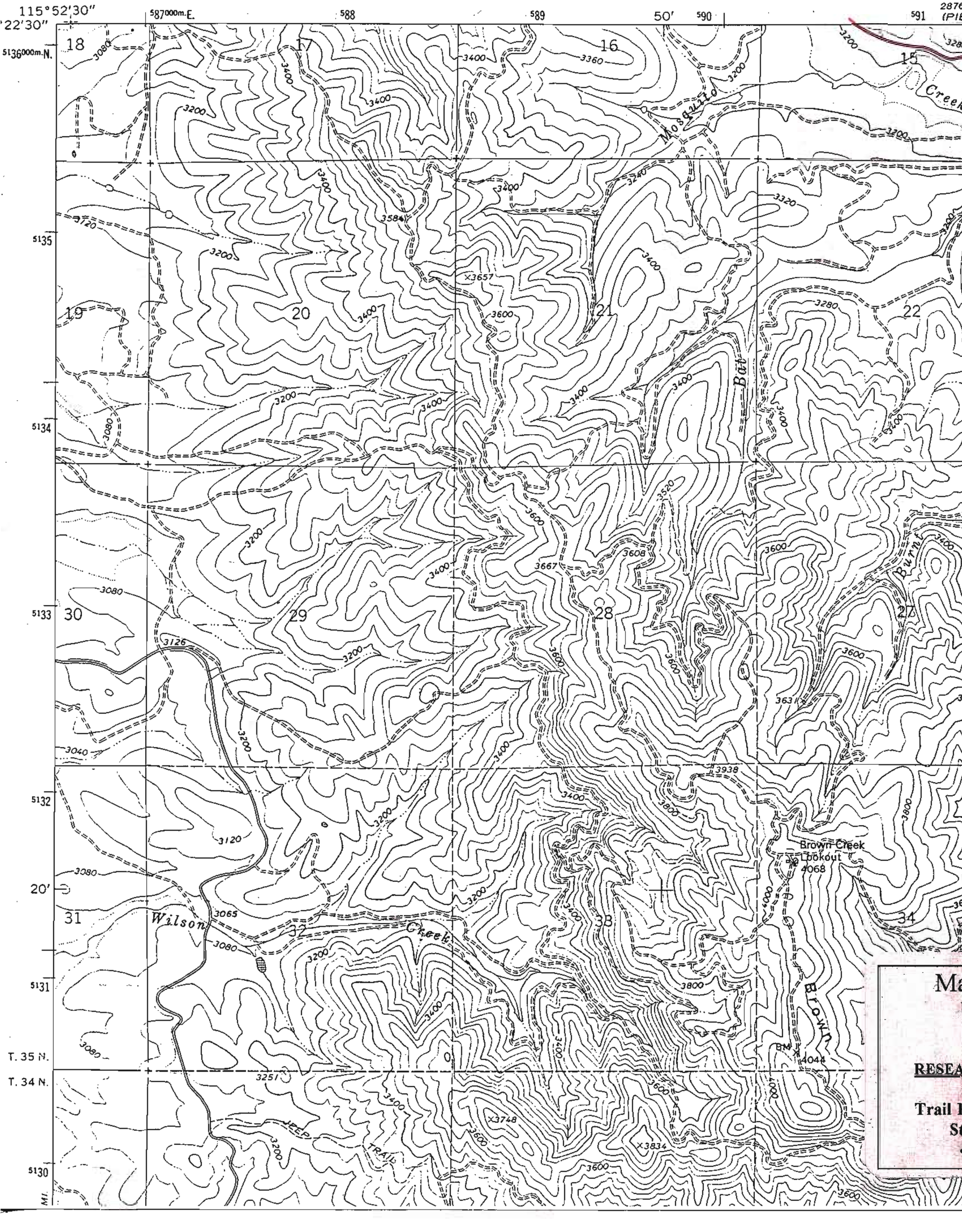
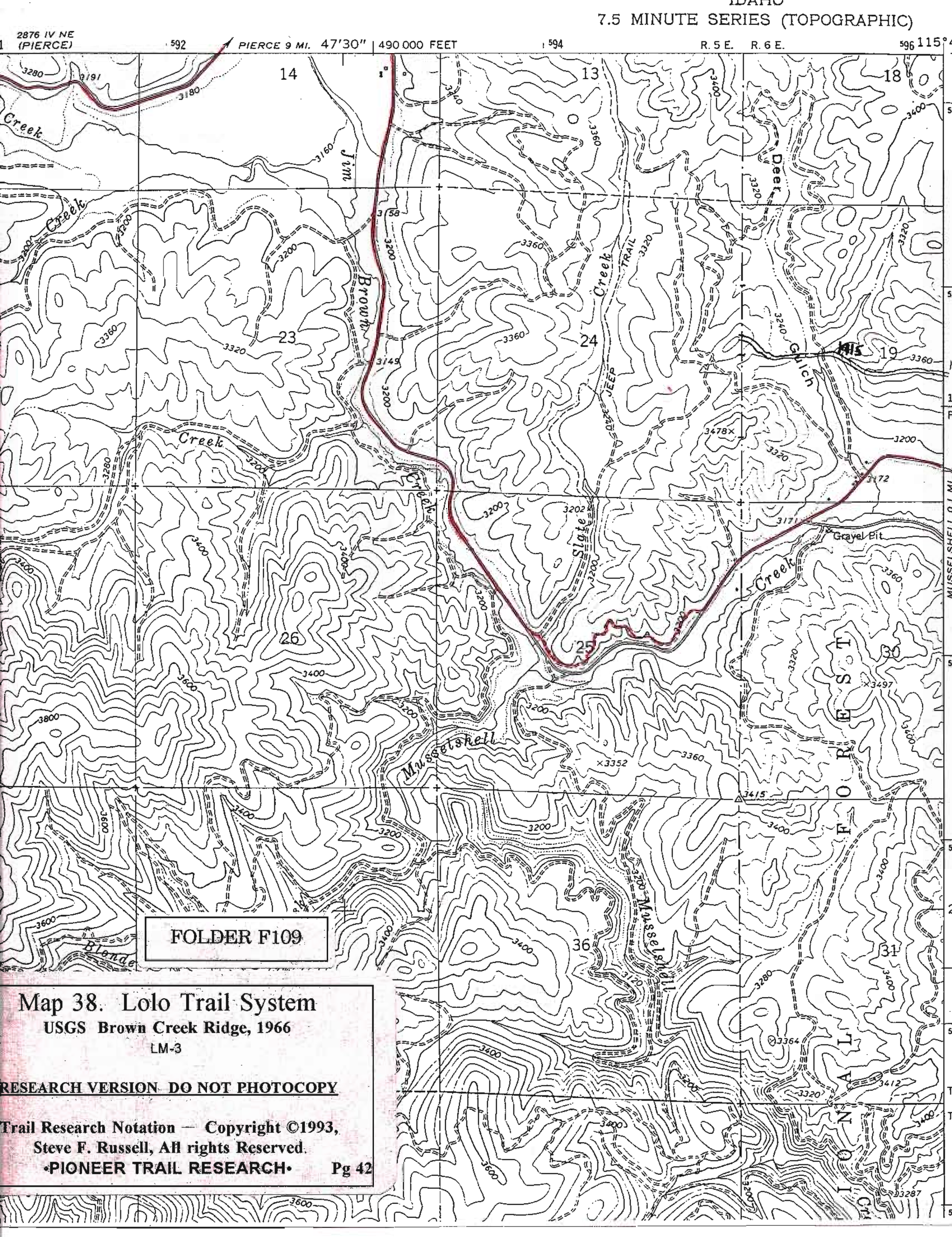
•PIONEER TRAIL RESEARCH• **Pg 41**

FOLDER F109

GEOLOGICAL SURVEY





FOLDER F109

Map 38. Lolo Trail System

USGS Brown Creek Ridge, 1966

LM-3

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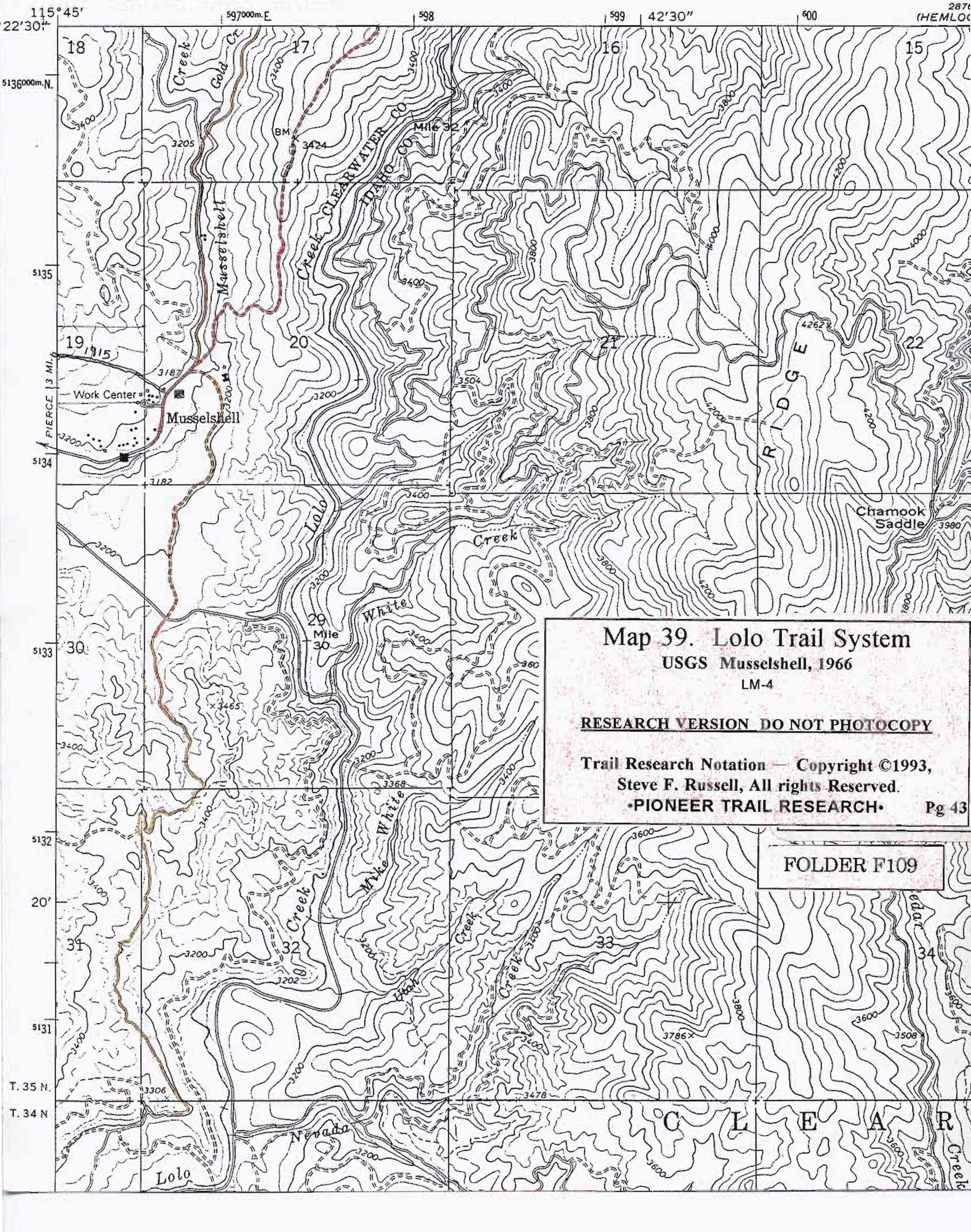
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



Map 39. Lolo Trail System

USGS Musselshell, 1966

LM-4

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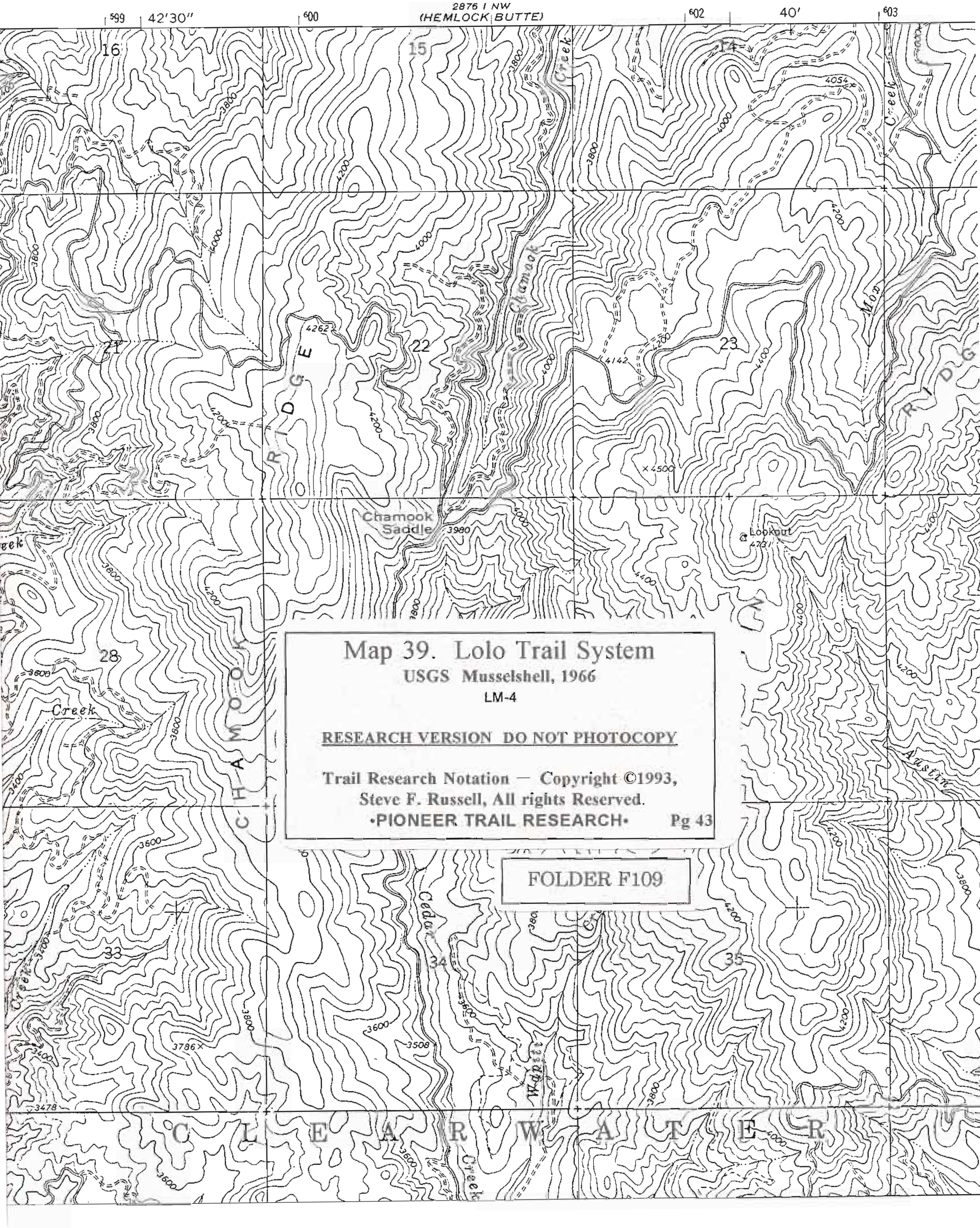
•PIONEER TRAIL RESEARCH• **Pg 43**

FOLDER F109



Map 39. Lolo Trail System

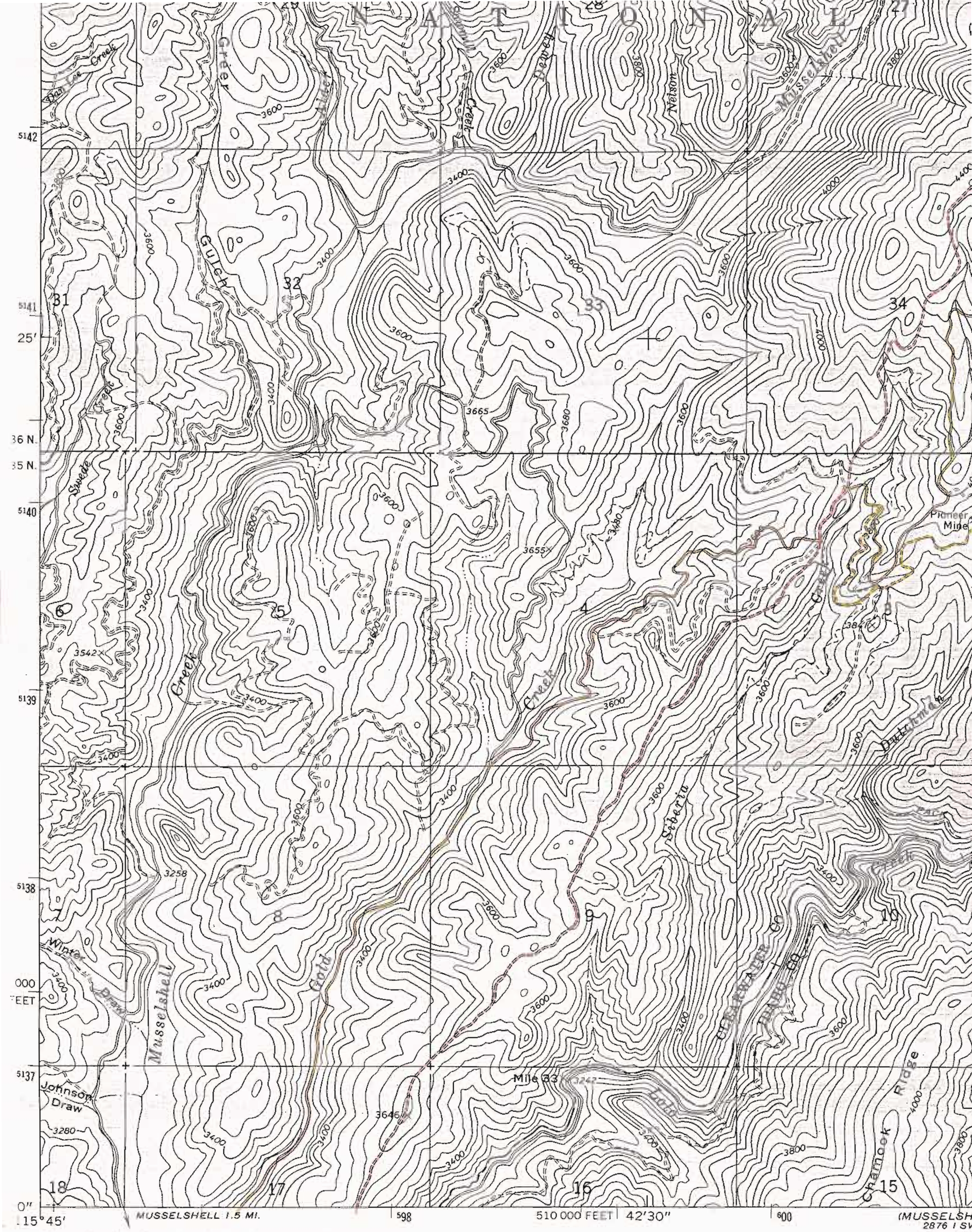
USGS Musselshell, 1966

LM-4

RESEARCH VERSION DO NOT PHOTOCOPY

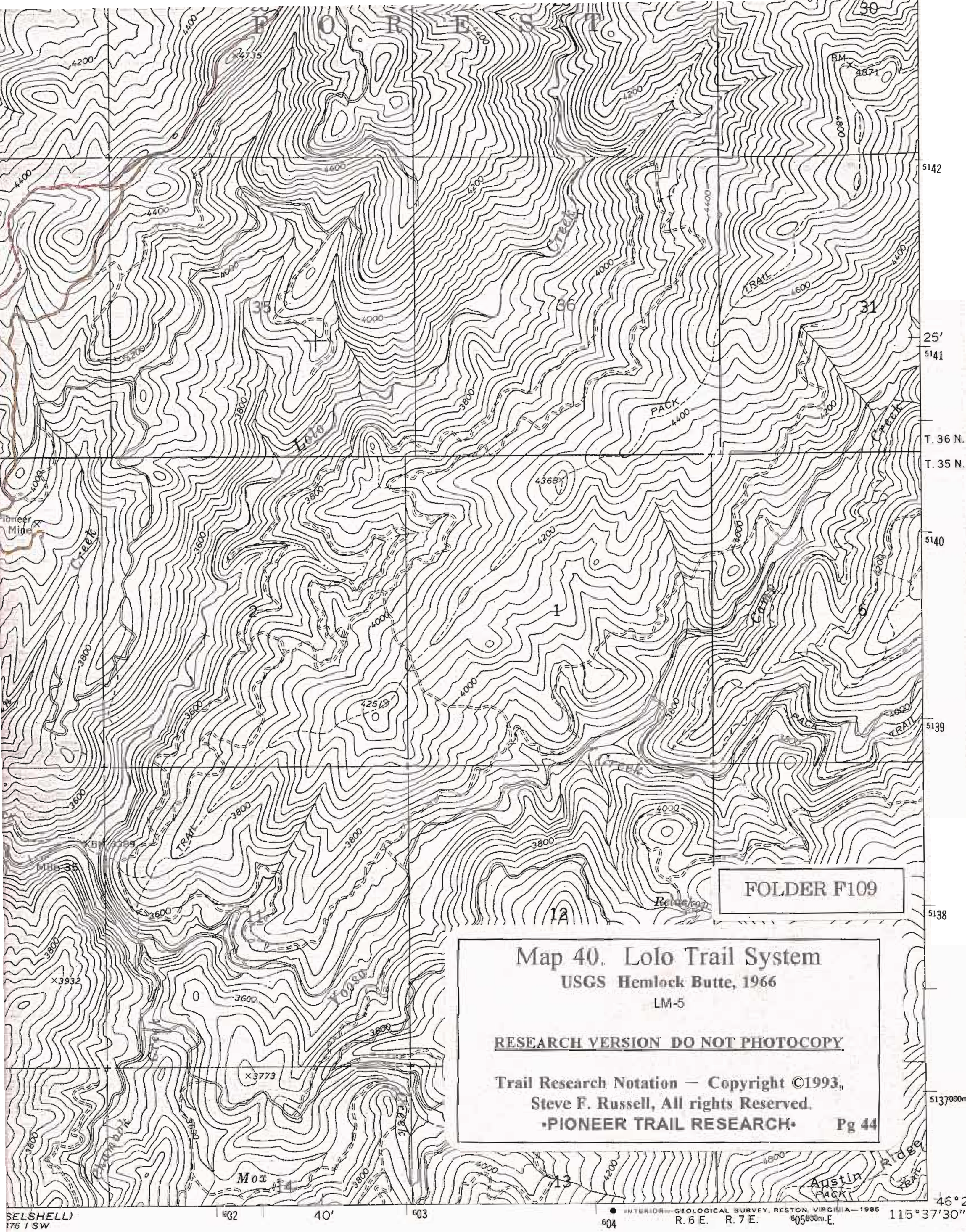
•PIONEER TRAIL RESEARCH• **Pg 43**

FOLDER F109



Mapped, edited, and published by Geological Survey

SCALE 1:24



FOLDER F109

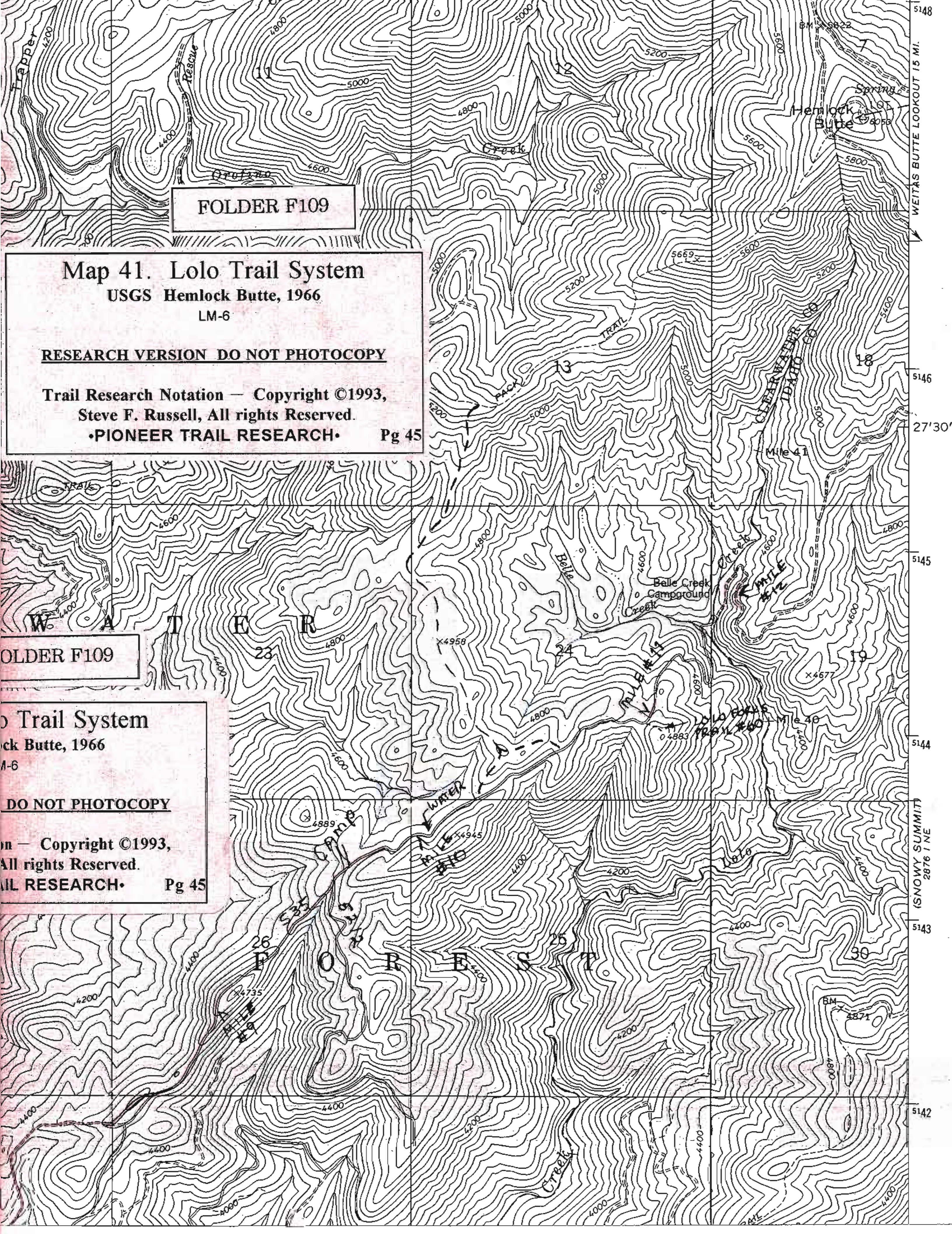
Map 40. Lolo Trail System

USGS Hemlock Butte, 1966

LM-5

RESEARCH VERSION DO NOT PHOTOCOPY

•PIONEER TRAIL RESEARCH•



FOLDER F109

Map 41. Lolo Trail System

USGS Hemlock Butte, 1966

LM-6

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•PIONEER TRAIL RESEARCH• **Pg 45**

OLDER F109
o Trail System
ck Butte, 1966
M-6
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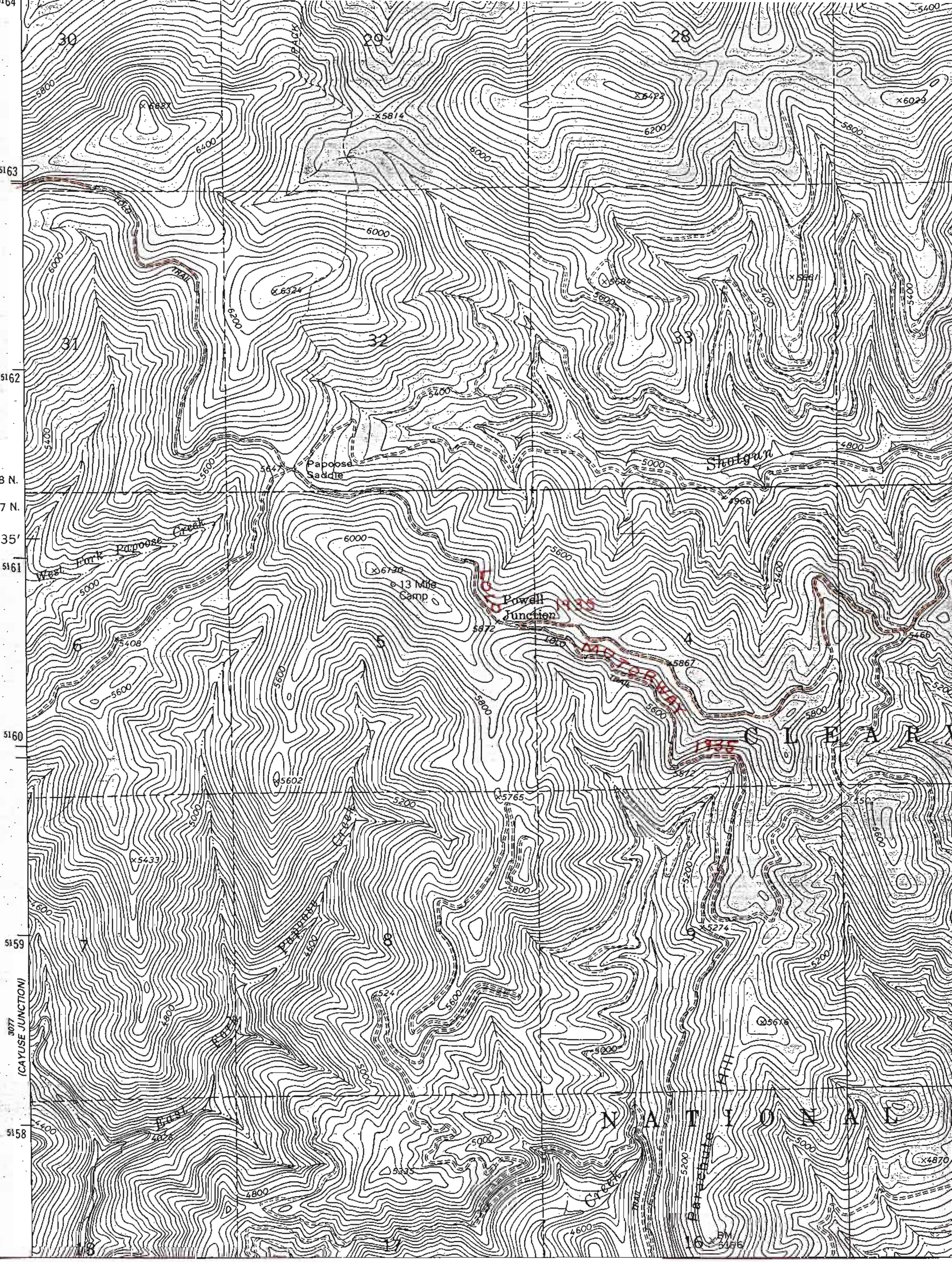
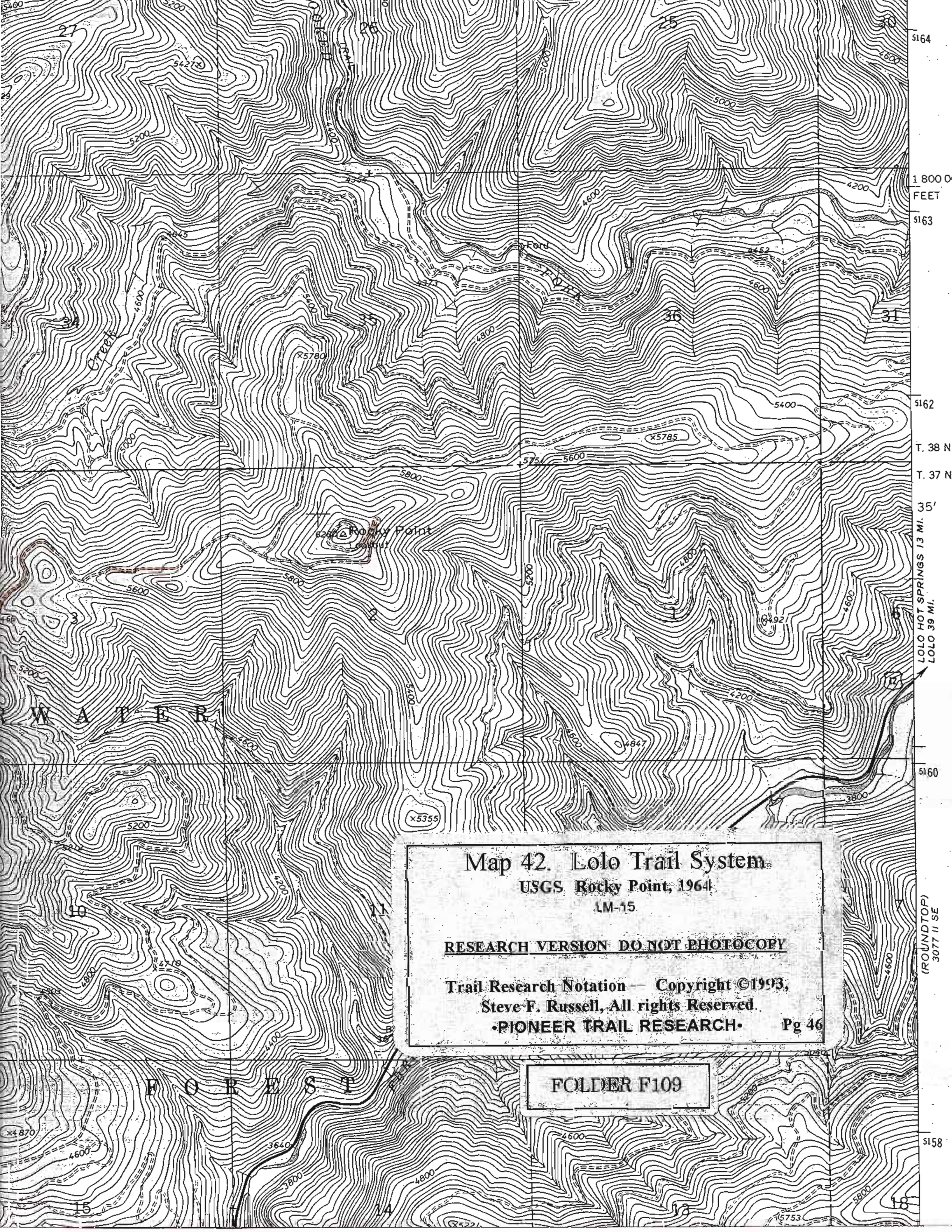
AIL RESEARCH• Pg 45


5164
5163
5162
5161
5160
5159
5158
T. 38 N.
T. 37 N.
35′
3077
(CAYUSE JUNCTION)
30
29
28
31
32
33
6
5
4
7
8
9
18
17
16
PACK
LOLO
TRAIL
6687
5814
6422
6029
6324
5684
5561
Papoose Saddle
5647
Shotgun
4966
West Fork Papoose Creek
6730
13 Mile Camp
Powell Junction
5872
1935
LOLO MOTORWAY
5867
Tank
5466
5408
5602
5765
5433
Papoose Creek
East Fork
4026
5274
5616
5335
Creek
TRAIL
Parachute
BM 5166
4870
C L E A R W
N A T I O N A L
6400
6200
6000
5800
5600
5400
5200
5000
4800
4600
4400



Map 42. Lolo Trail System

USGS Rocky Point, 1964

LM-15

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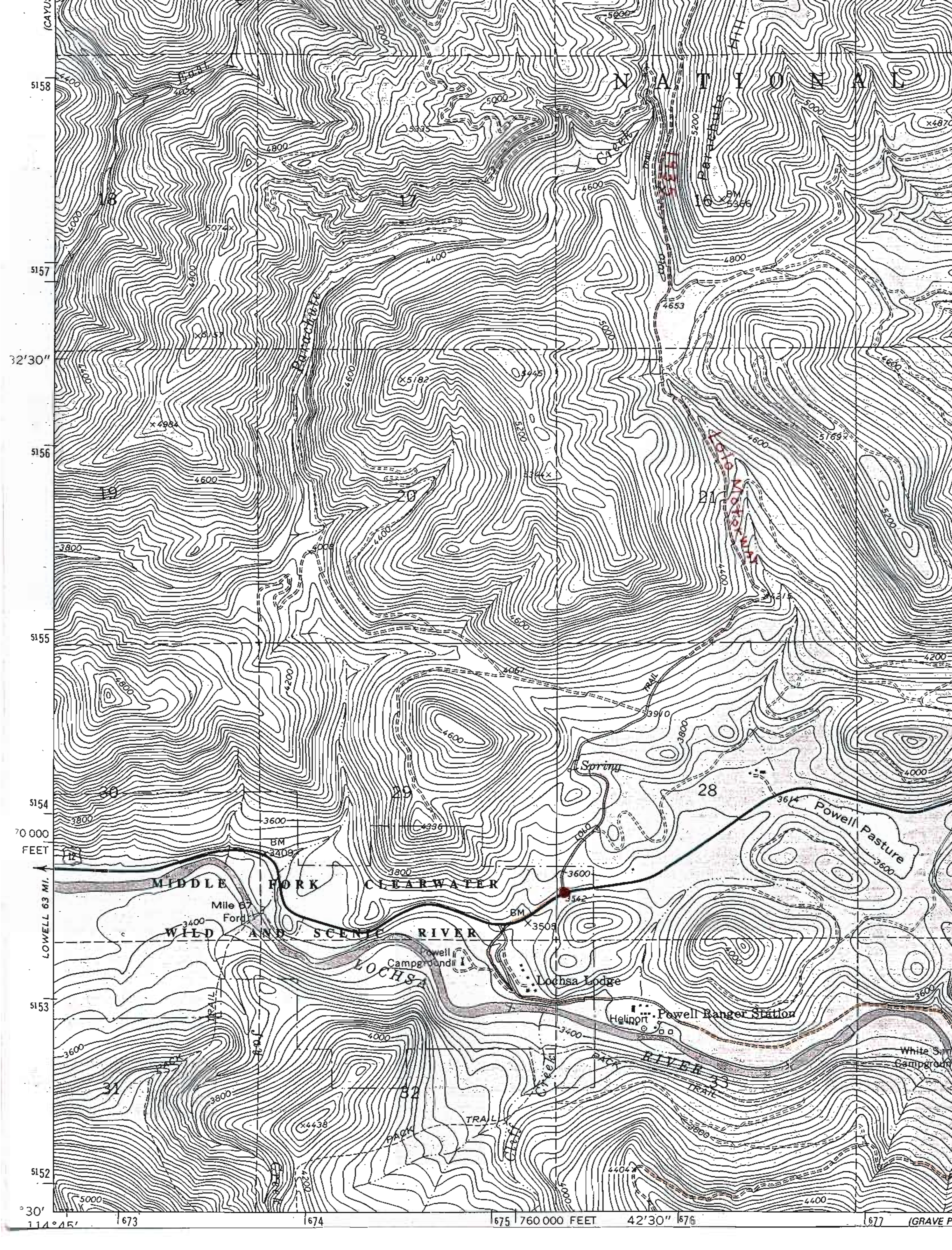
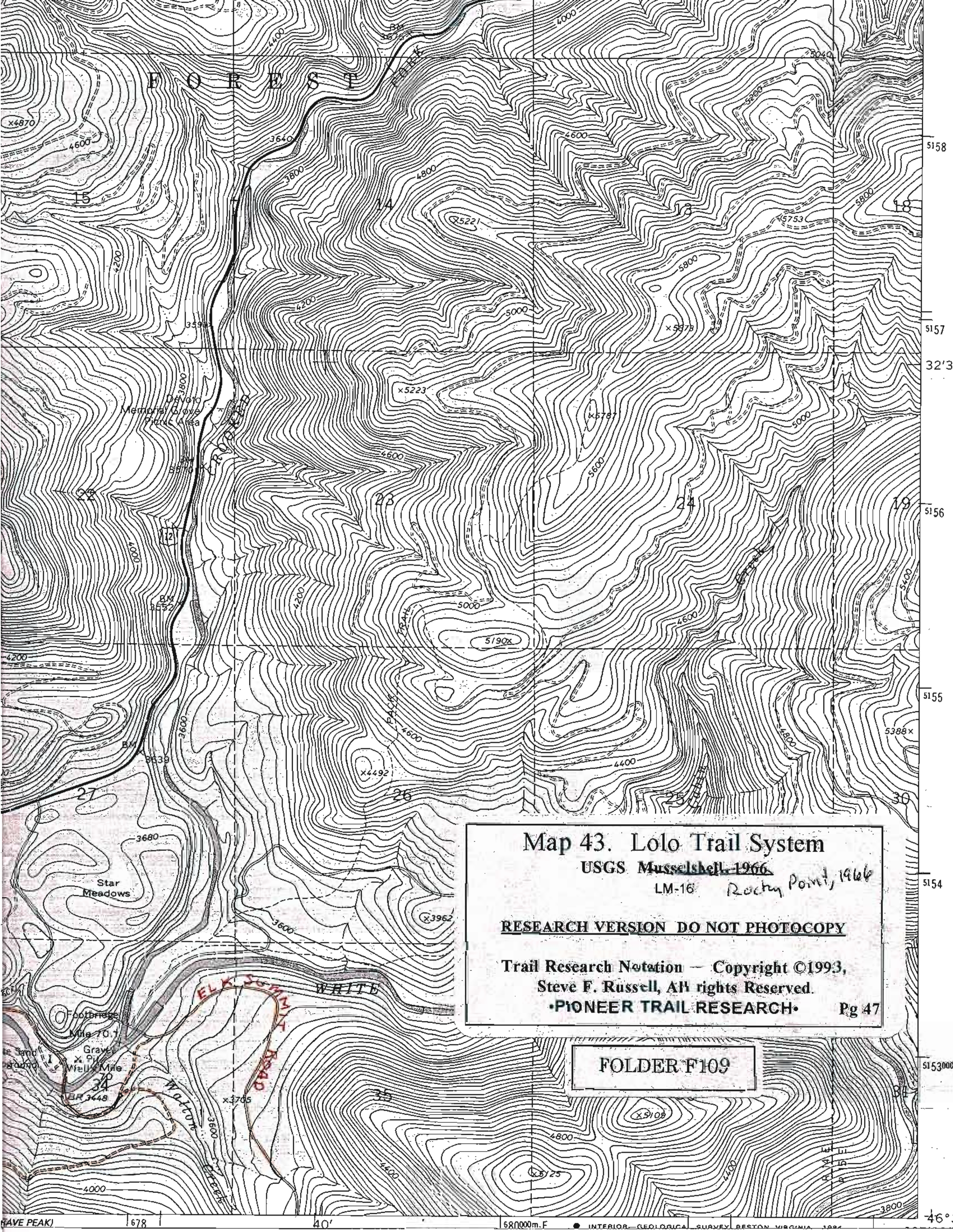

(CAYUS
N A T I O N A L
East
Creek
Parachute
Parachute Hill
TRAIL
Lolo
Lolo Motorway
18
17
16
19
20
21
30
29
28
31
32
33
5158
5157
32'30"
5156
5155
5154
70 000
FEET
5153
5152
°30'
114°45'
673
674
675
760 000 FEET
42'30"
676
677
(GRAVE P
LOWELL 63 MI.
12
BM
5366
5335
5074
5157
4984
5182
5445
5344
5169
4870
4653
4215
4067
4008
3910
Spring
3614
Powell Pasture
BM
3409
MIDDLE FORK CLEARWATER
WILD AND SCENIC RIVER
Mile 67
Ford
BM
3505
3142
Powell
Campground
LOCHSA
Lochsa Lodge
Powell Ranger Station
Heliport
RIVER
PACK TRAIL
Cliff Creek
White S
Campgrou
4336
4438
4404
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200



Map 43. Lolo Trail System

USGS ~~Musselshell, 1966~~ Rocky Point, 1966

LM-16

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FOLDER F109

MAP SET - FOLDER F109

LOLO TRAIL SYSTEM

RESEARCH MASTERS

Map Sequence #5, Maps LTS 44-67, Pages 49-72.

1. **Archive Maps of the Lolo Trail System.**

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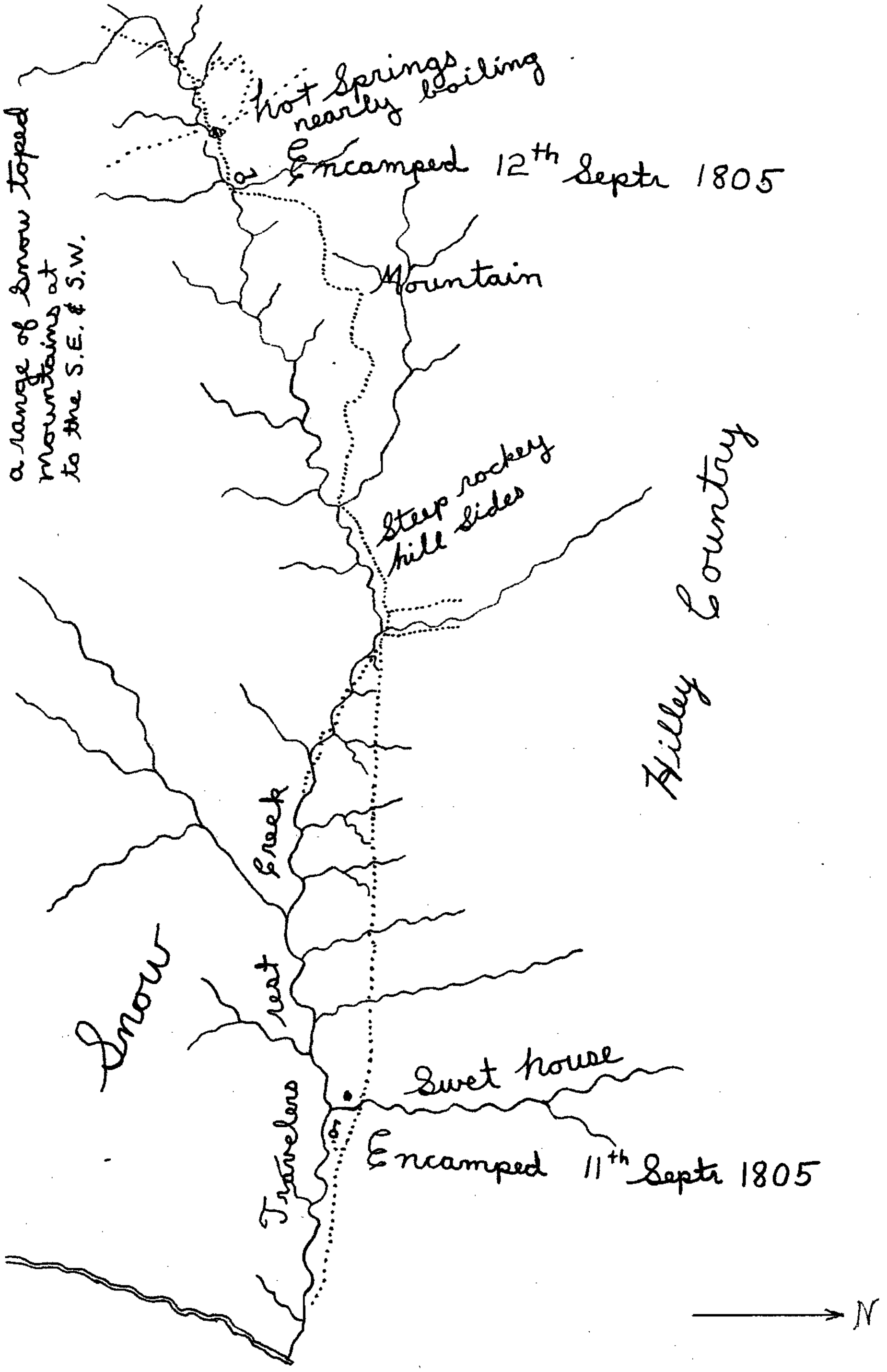
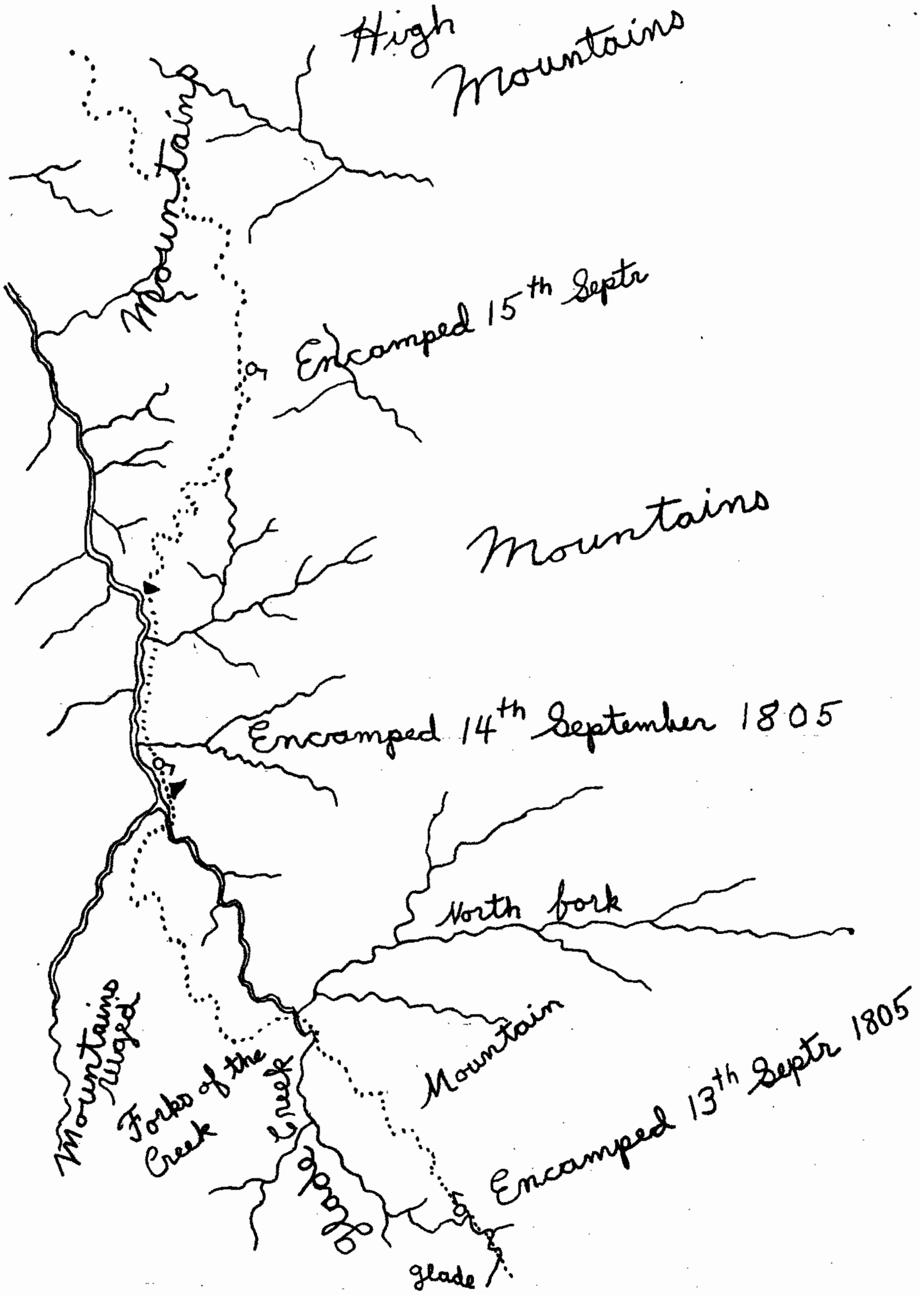


Moulton P 200

3/28/92
SHR



▲ Indian Camp

→ N

LDER F109

p 44. Lolo Trail System

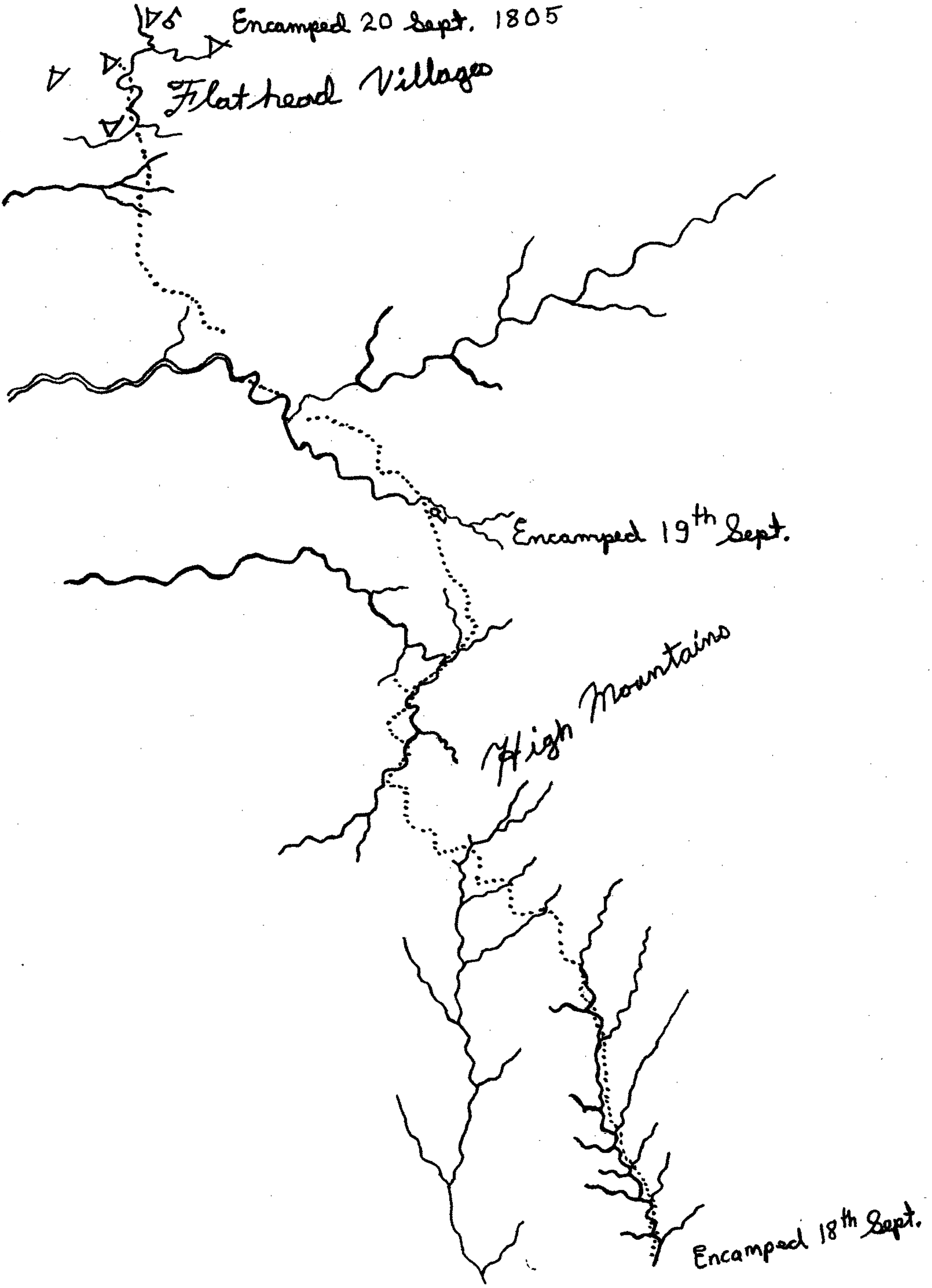
Lewis & Clark Archive Map

MOULTON, V5, Pg 200, 208

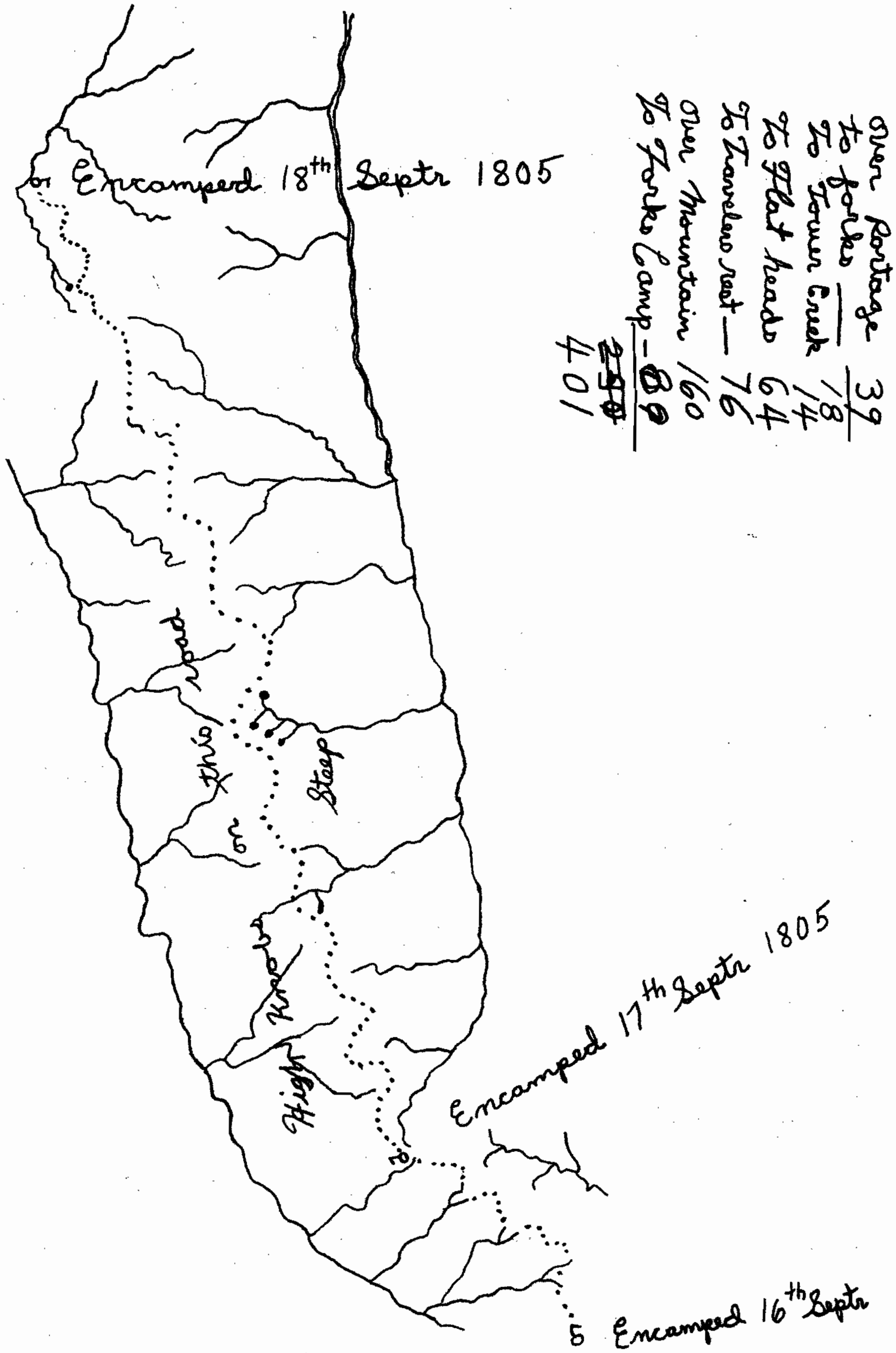
CH VERSION DO NOT PHOTOCOPY

Moulton p 208

3/29/31



Moulton P 220
SFR
12/17/92



Over Portage 39
To forks 18
To Tower Creek 14
To Flat heads 64
To Traveler rest — 76
Over Mountain 160
To Forks Camp — 80
~~290~~
401

FOLDER F109

Map 45. Lolo Trail System

Lewis & Clark Archive Map

MOULTON, V5, Pg 212, 220

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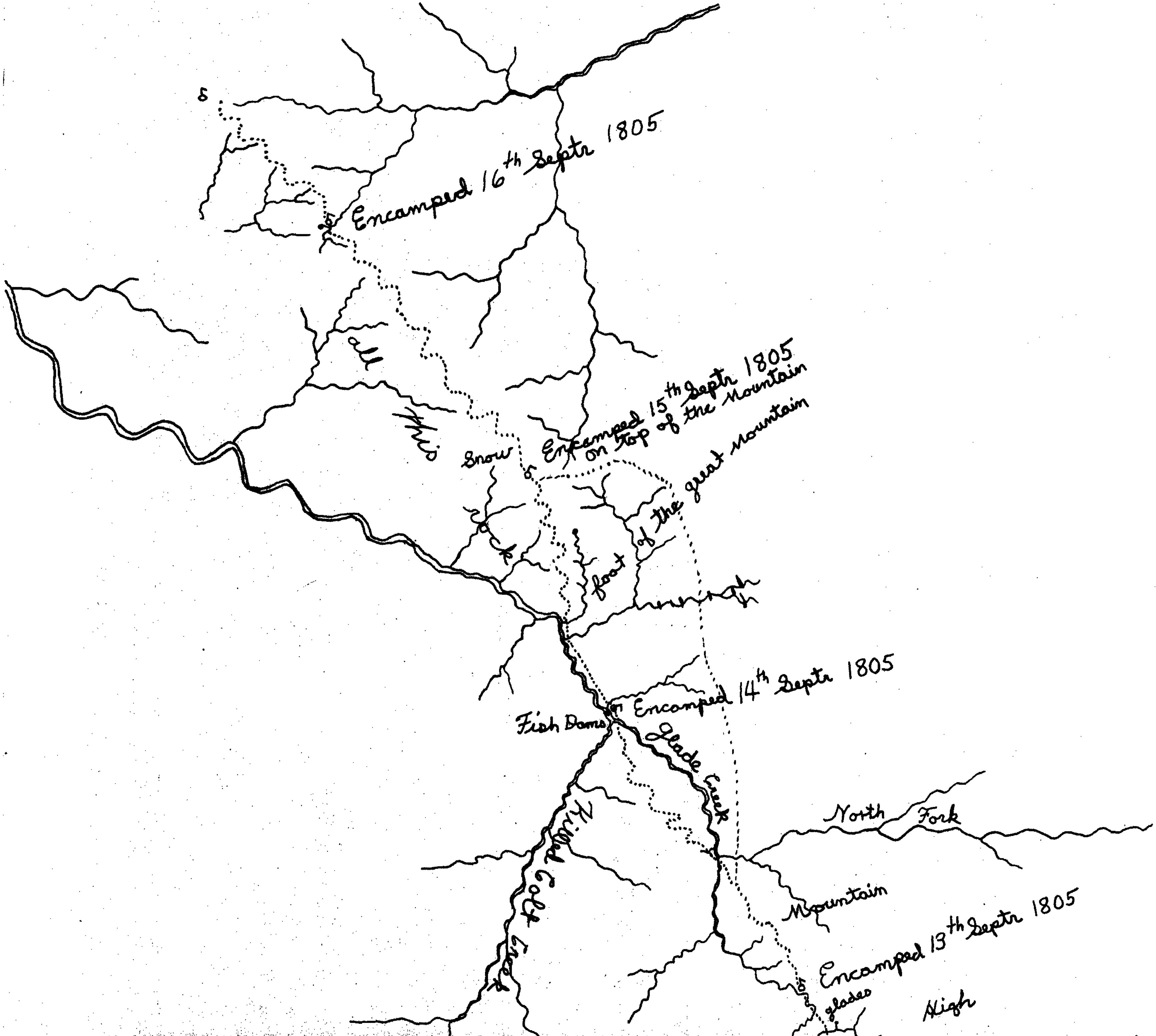
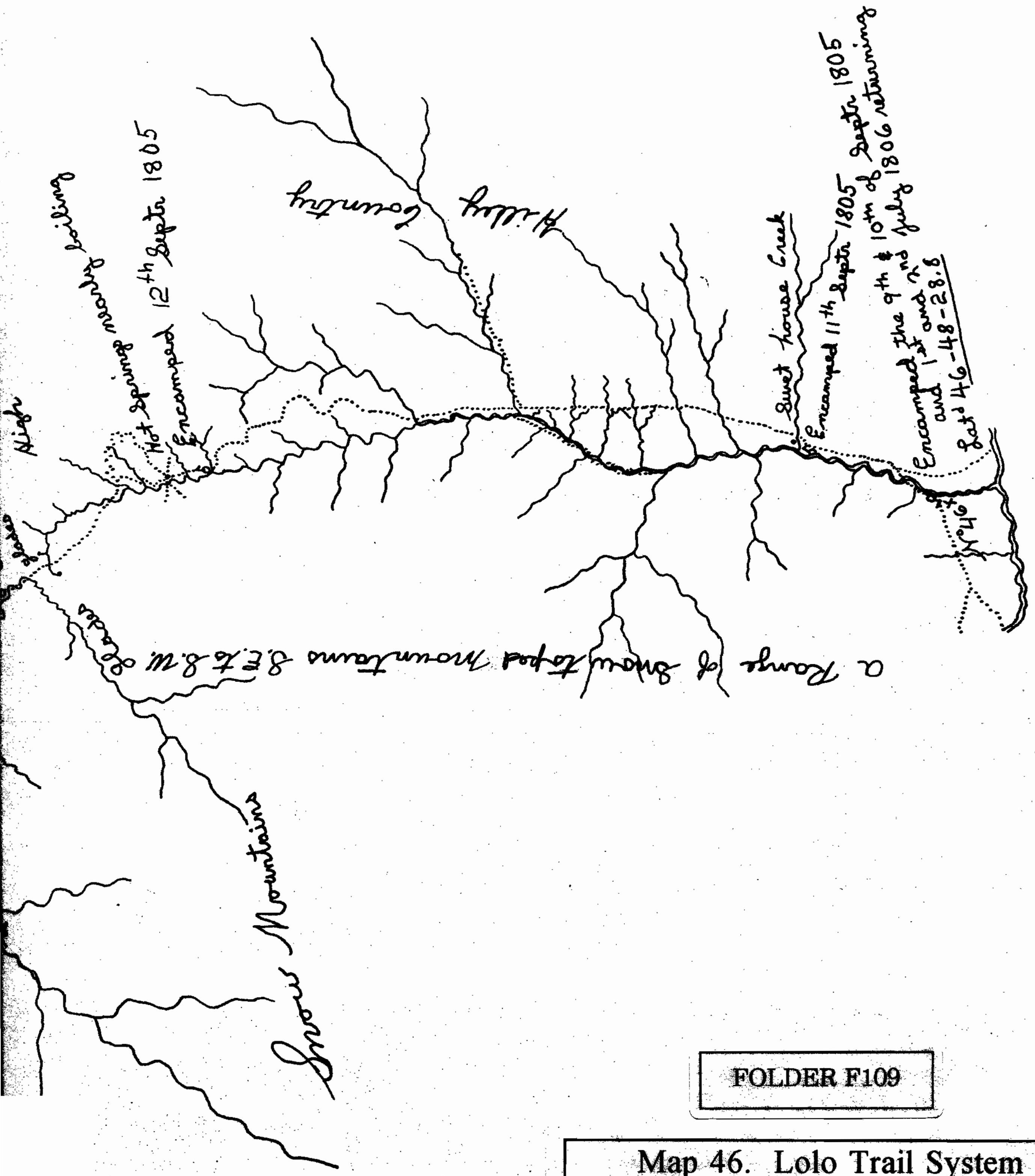
Moulton P 212

3/29/92

SFR


Encamped 16th Septr 1805
all
this
Snow
rock
Encamped 15th Septr 1805
on top of the Mountain
foot of the great mountain
Encamped 14th Septr 1805
Fish Dams
Glade Creek
Killed Colt Creek
North Fork
Mountain
Encamped 13th Septr 1805
glades
High


High
Hot springs nearly boiling
Encamped 12th Septr 1805
Hilly Country
Sweet house Creek
Encamped 11th Septr 1805
Encamped the 9th & 10th of Septr 1805 and 1st and 2nd July 1806 returning
Latd 46-48-28.8
N°46th
Lakes
A Range of Snow topped Mountains S.E. & S.W. of
Lakes
Snow Mountains

Moulton Maps 69, 70,

3/29/92
SFR

FOLDER F109

Map 46. Lolo Trail System

Lewis & Clark Archive Map

MOULTON, Maps 69, 70

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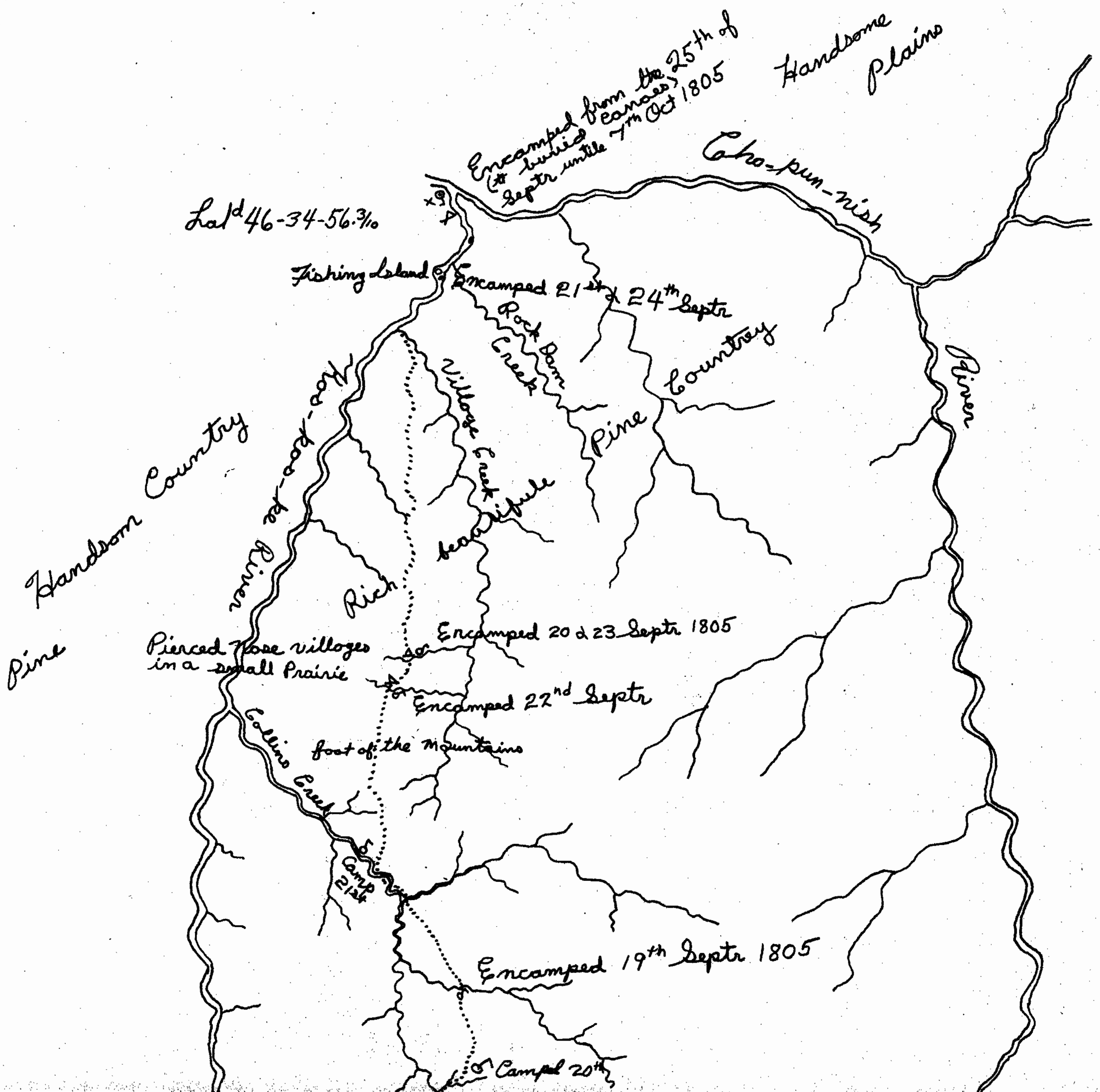
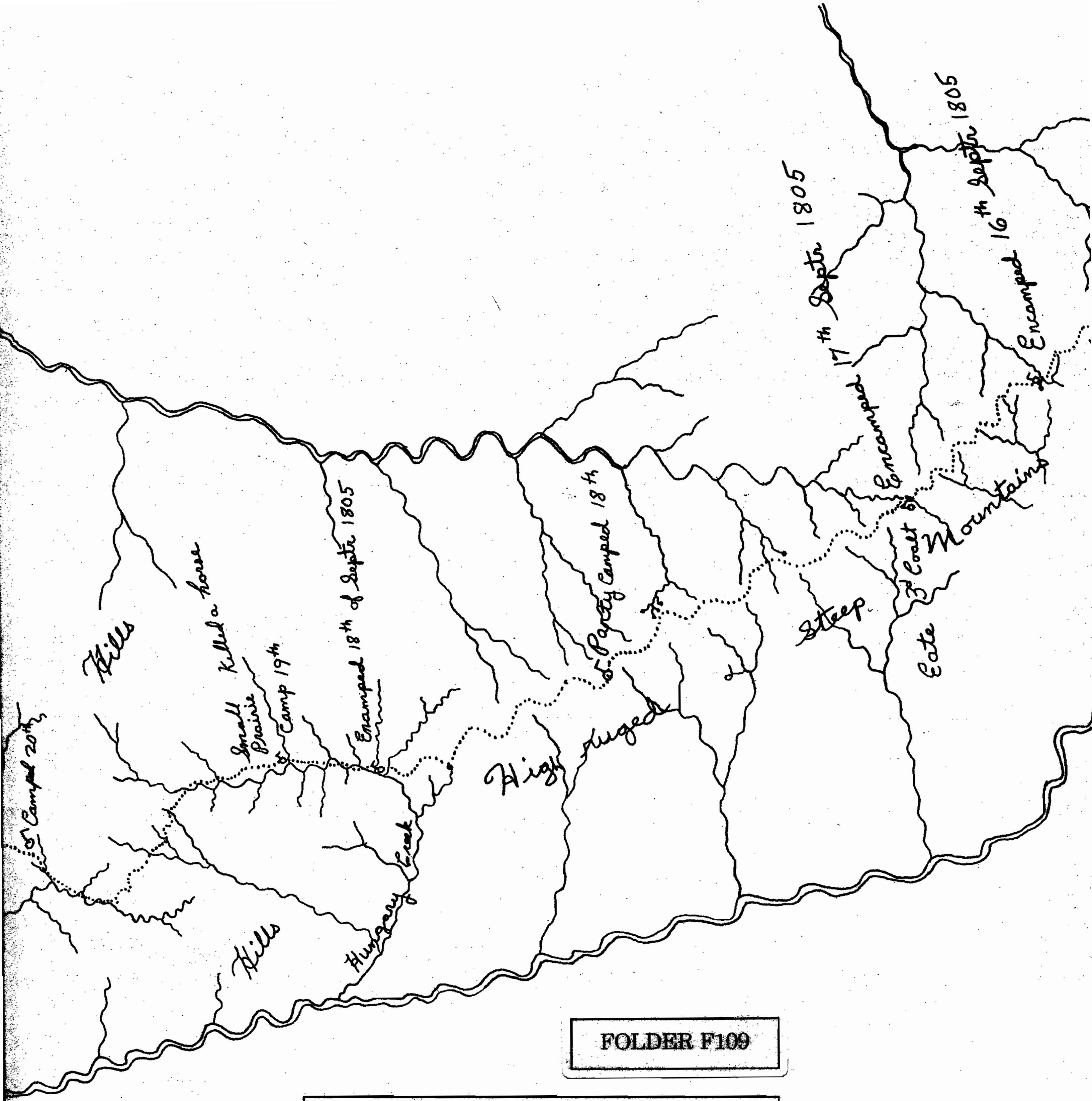

Encamped from the 25th of
(# buried canoes)
Septr untile 7th Oct 1805
Handsome plains
Cho-pun-nish
River
Latd 46-34-56.3/10
×9
A
Fishing Island
Encamped 21st & 24th Septr
Rock Dam Creek
Pine Countrey
Villoge Creek
beautifule
Handsom Country
Koo-koo-ke River
Rich
Pine
Pierced Nose villoges
in a small Prairie
Encamped 20 & 23 Septr 1805
Encamped 22nd Septr
foot of the mountains
Collins Creek
5
Camp
2/24
Encamped 19th Septr 1805
Campd 20th



FOLDER F109

Map 47. Lolo Trail System

Lewis & Clark Archive Map

MOULTON, Maps 70, 71

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Moulton 70, 71

3/29/92

Map 48. Lolo Trail System

Northwest U.S. Archive Map

M1.005 WASH:HOOD-2 1839

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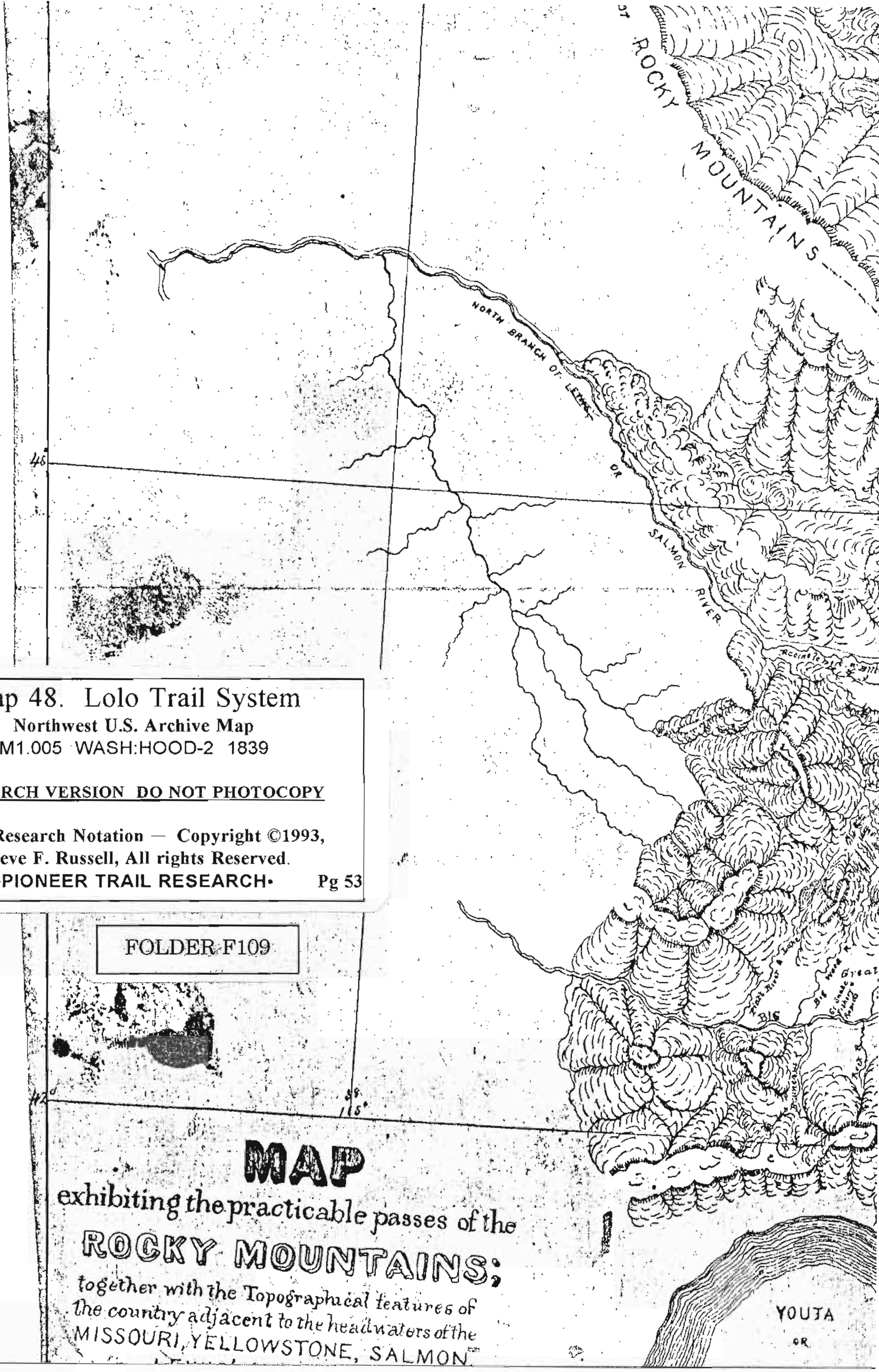
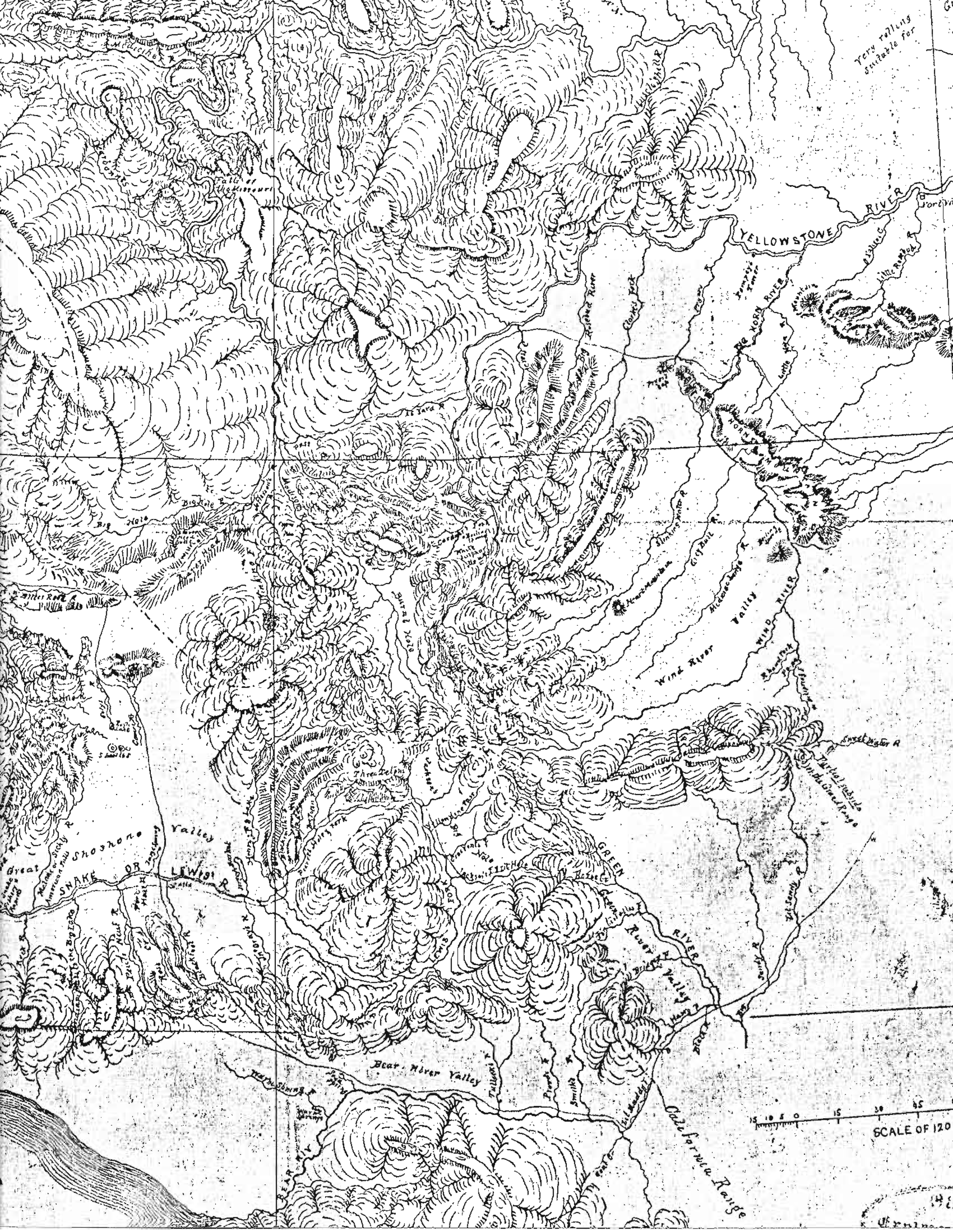
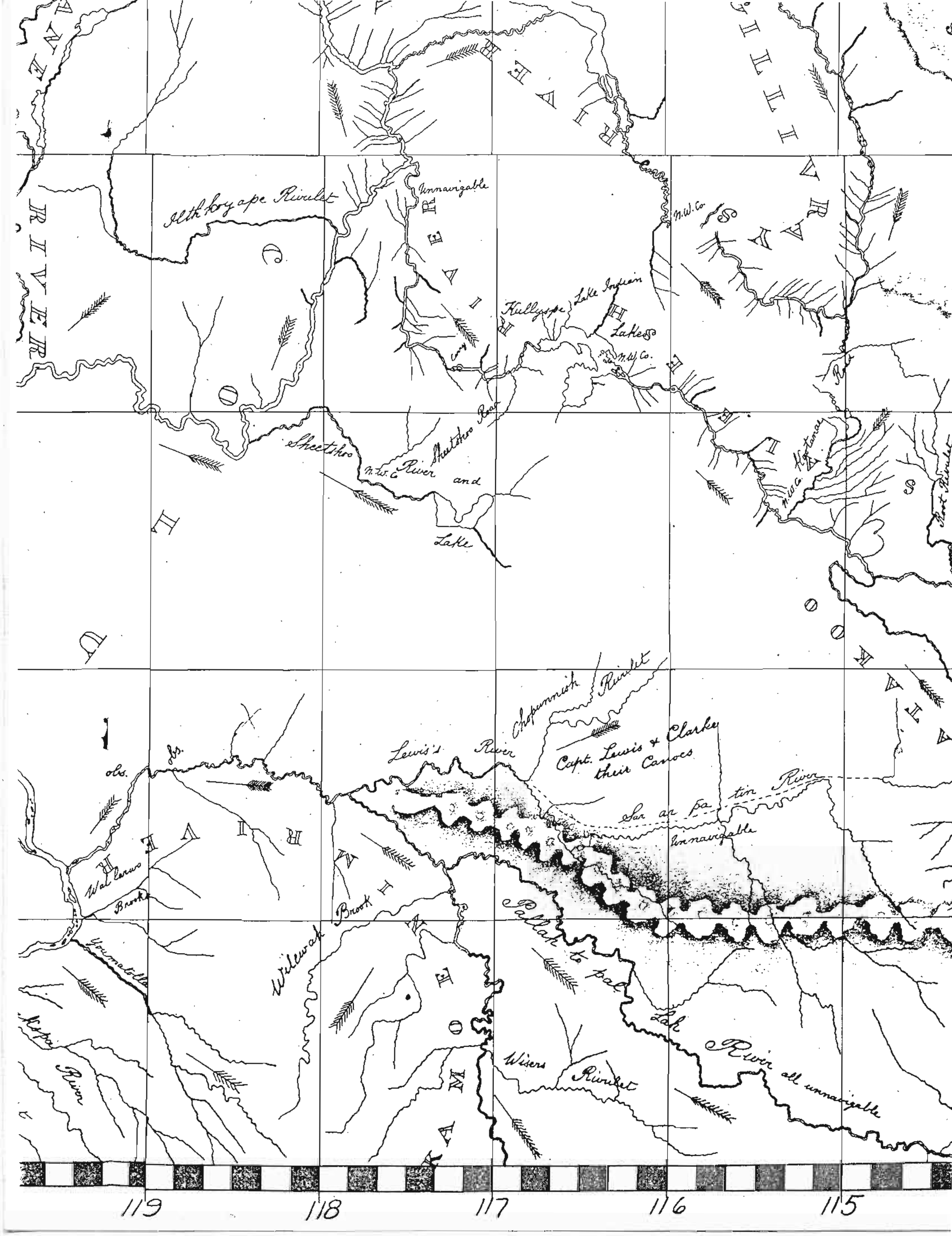
•PIONEER TRAIL RESEARCH• Pg 53

FOLDER F109


ROCKY MOUNTAINS
NORTH BRANCH OF LEWIS OR SALMON RIVER
46
47
115
YOUTA
OR
MAP
exhibiting the practicable passes of the
ROCKY MOUNTAINS;
together with the Topographical features of
the country adjacent to the headwaters of the
MISSOURI, YELLOWSTONE, SALMON


Very rolling suitable for
Falls of the Missouri
YELLOWSTONE RIVER
Fort
Rosebud River
Clark's Fork
Little Rosebud R
Big HORN RIVER
Little Horn R
Mountain
HORN
Big Hole R
Big Hole
Bitter Root R
Stinking Water R
Grey Bull R
Medicine Lodge R
Heart Mountain
Wind River Valley
WIND RIVER
Sweet Water R
Three Tetons
Jackson's
Pierre's Hole
Big Hole
Jackson's Little Hole
Great Shoshone Valley
SNAKE OR LEWIS R
American Falls
Falls
Fort Hall
Sickly R
Port Neuf R
Blackfoot R
Lewis Fork
GREEN RIVER
Green River Valley
Big Sandy R
Little Sandy R
Bear River Valley
Smith's R
Thomas' R
Beer Springs
Ham's Fork
Black's Fork
California Range
BEAR RIV
SCALE OF 120
15 10 5 0 15 30 45


RIVER
Althkoyape Rivulet
Unnavigable
N.W. Co
Kullyspe Lake Indian
Lakes
N.W. Co.
Sheetshoo
N.W. Co River and
Sheetshoo Rour
Lake
N.W. Co. Kootanae
Root Rivulet
Chopunnish Rivulet
Lewis's River
Capt. Lewis & Clarke their Canoes
Sar an pa tin River
Unnavigable
obs. Is.
Wal Lar wo Brook
Wilewah Brook
Youmatolla
Pallah to pal Lah River all unnavigable
Wisers Rivulet
Kospa River
119
118
117
116
115

FOLDER F109

Map 49. Lolo Trail System

David Thompson Archive Map

M1.006 Thompson 1814

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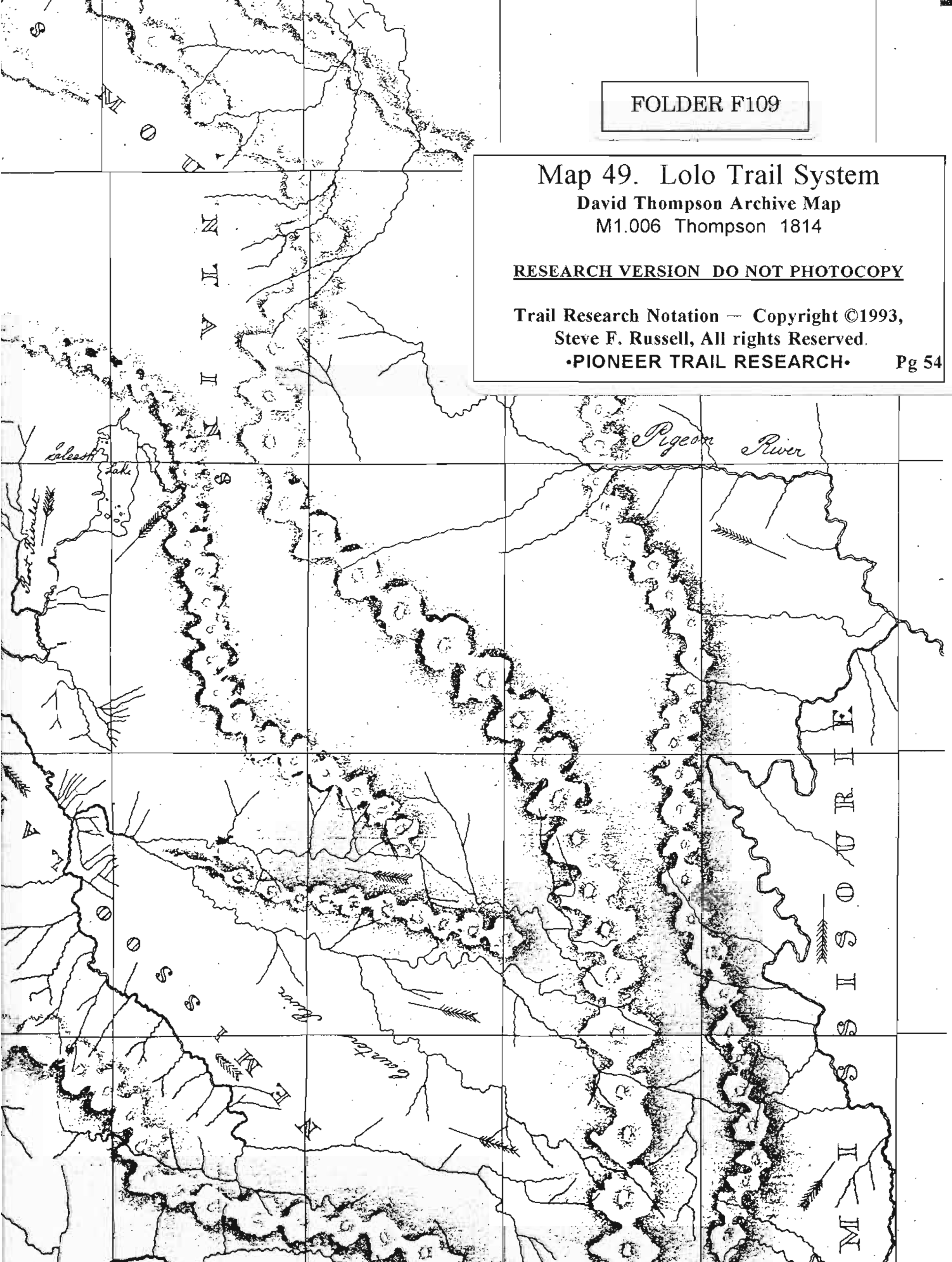
•PIONEER TRAIL RESEARCH• Pg 54



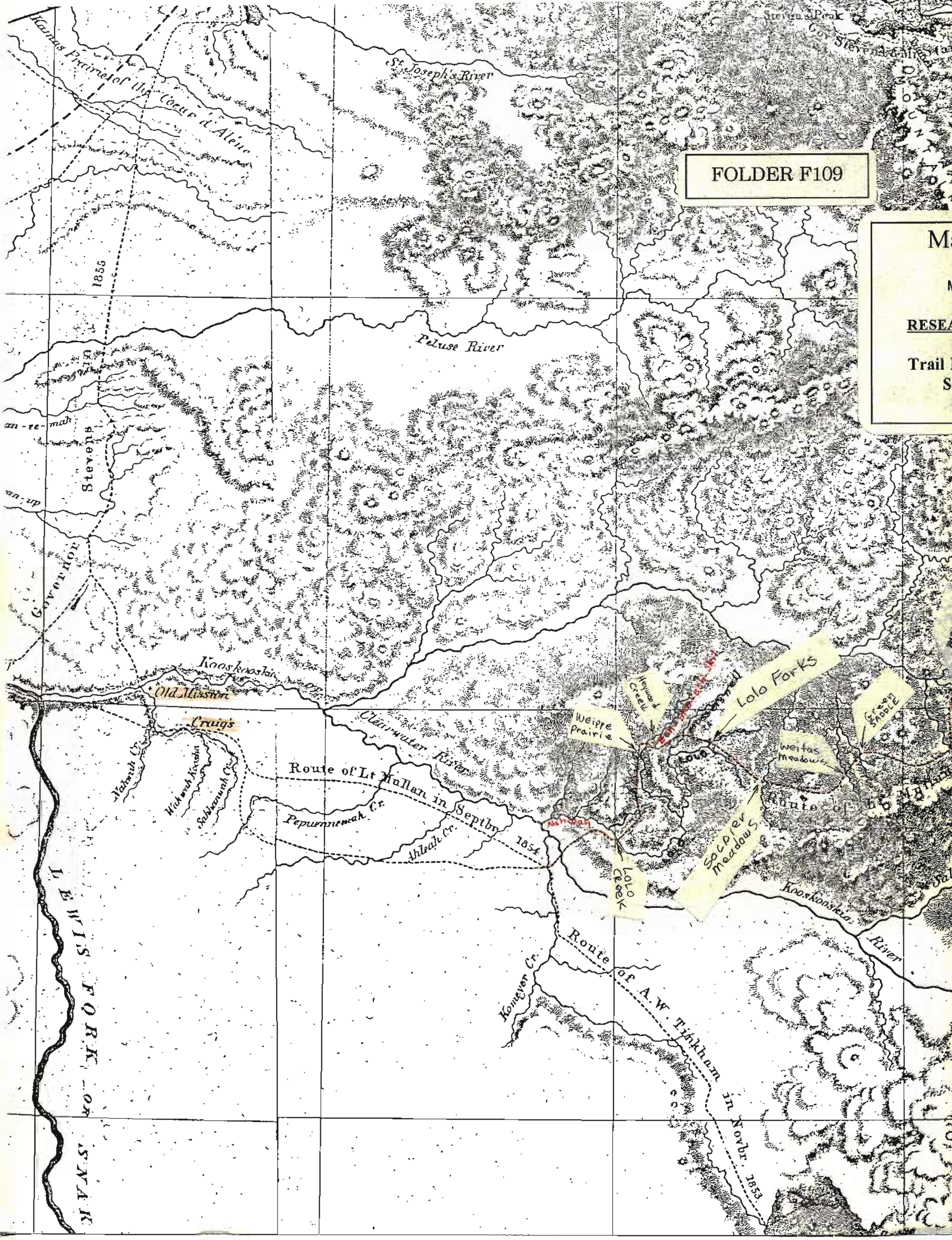
FOLDER F109

Ma

M

RESEA

Trail I
S



Map 50. Lolo Trail System

John Mullan PRR Archive Map

M2.001 PRR-Survey-Stevens-1 1853-55

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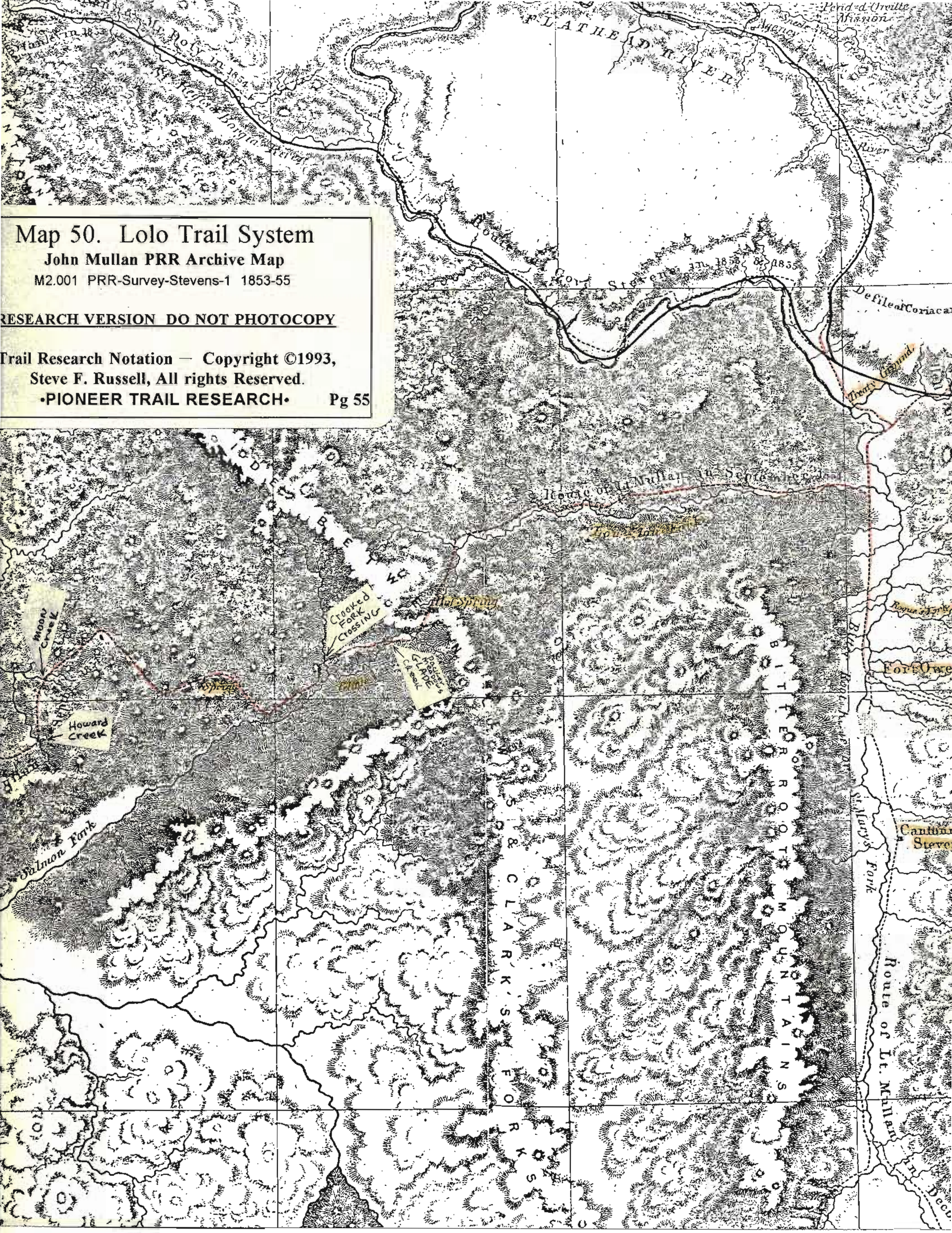
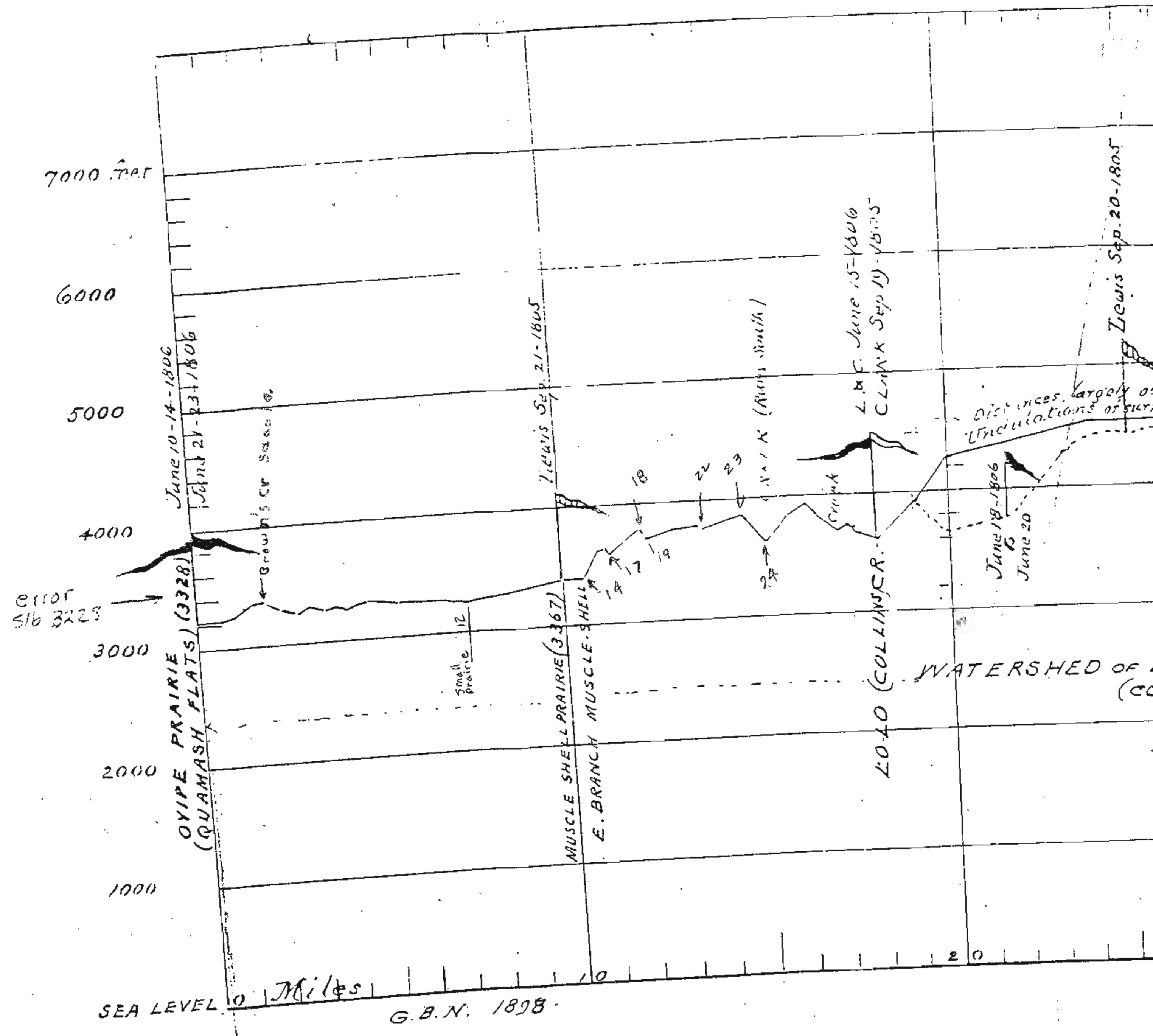
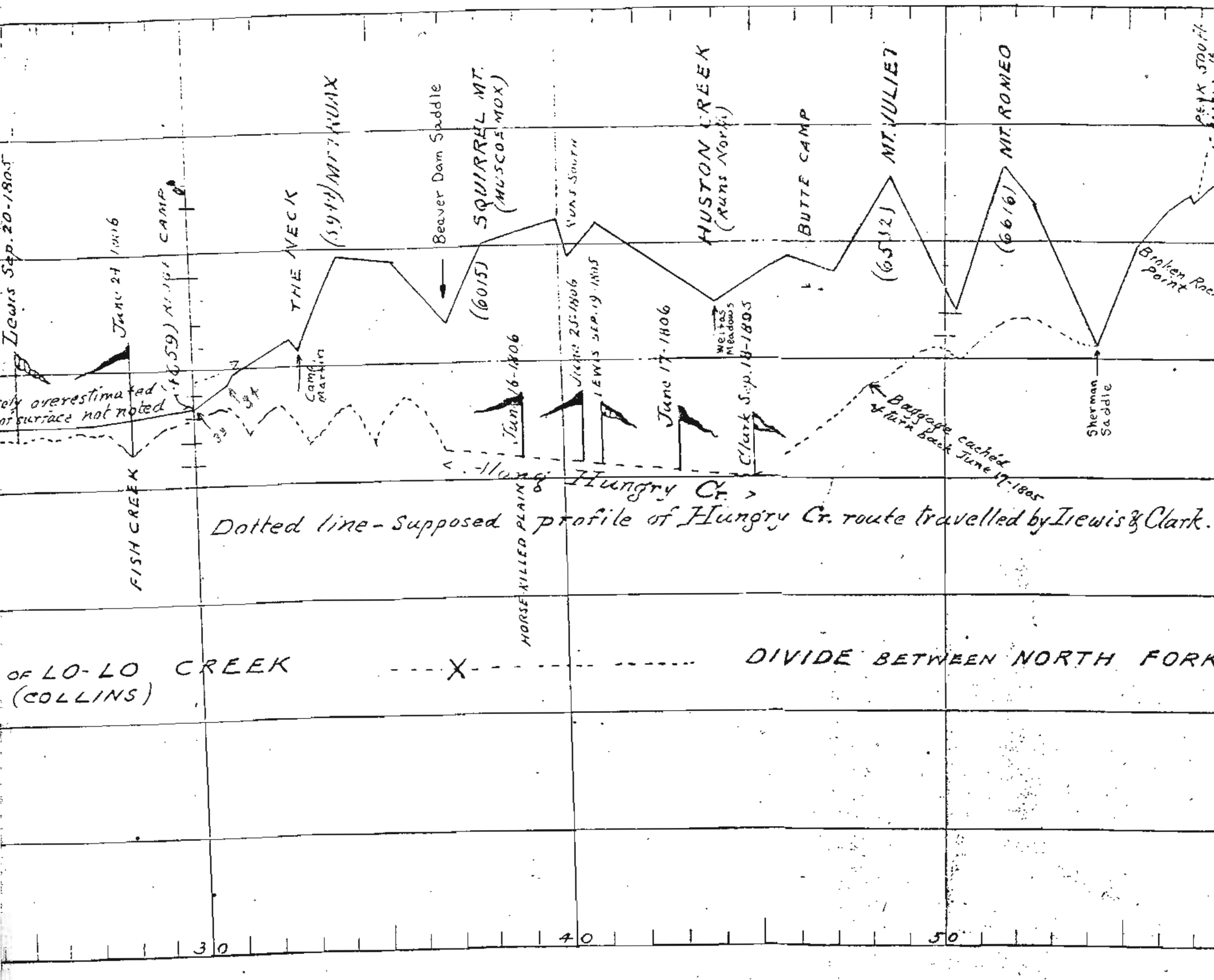
•PIONEER TRAIL RESEARCH• **Pg 55**




7000 feet
6000
5000
4000
3000
2000
1000
SEA LEVEL
error s/b 3225
June 10-14-1806
June 21-23-1806
OYIPE PRAIRIE (QUAMASH FLATS) (3328)
Brown's Cr Sacalle
Small Prairie
12
Lewis Sep 21-1805
MUSCLE SHELL PRAIRIE (3367)
E. BRANCH MUSCLE-SHELL
14
17
18
19
22
23
24
Creek (Rush Smith)
Creek
L & C June 15-1806
CLARK Sep 19-1805
LOLO (COLLINS CR.)
WATERSHED OF
(CO
Distances largely o
Undulations of surf
June 18-1806 to June 20
Lewis Sep 20-1805
0
Miles
10
20
G.B.N. 1898



PROFILE OF THE LOLO

Map 51. Lolo Trail System

Nicholson Profile Map A

G. B. NICHOLSON 1898

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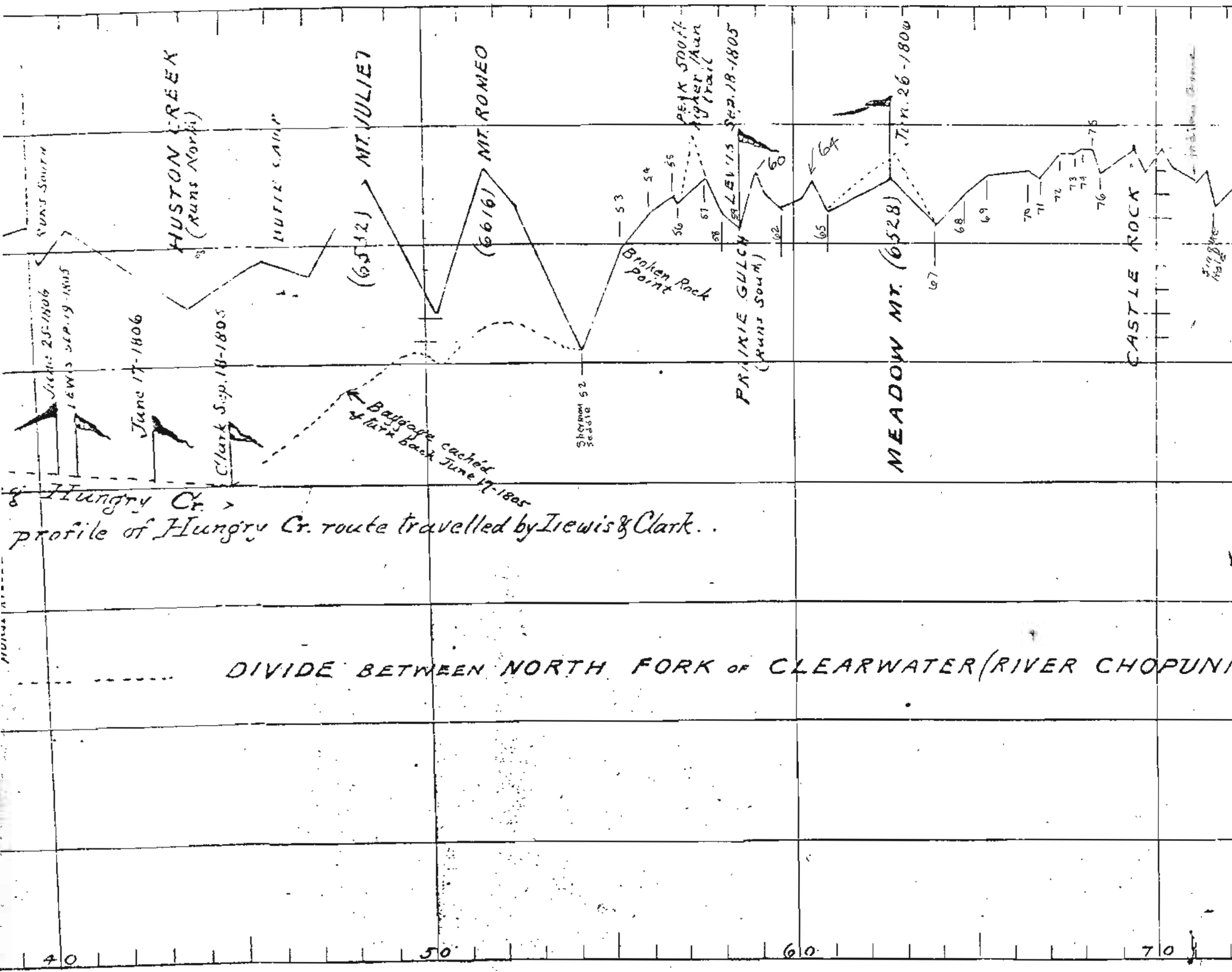
FOLDER F109

A

CFR NOTES: 1, above mile

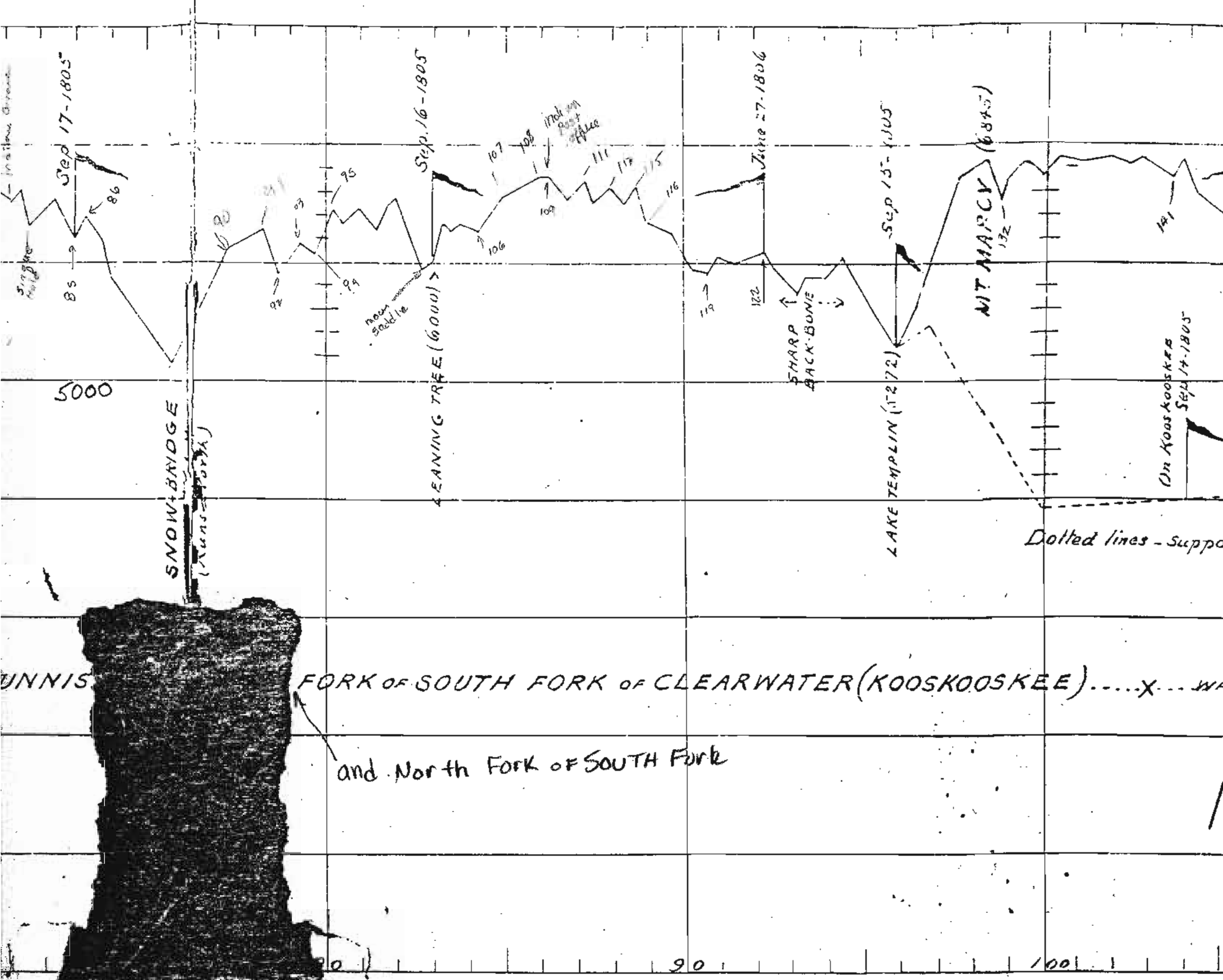


PROFILE OF THE LO LO OR NORTH NEZ-

·ALL DISTANCES ESTIMA
ELEVATIONS FROM OBSERV
ALL OTHER ELEVATIONS

CFR NOTES: 1, above milerage is long by a factor of 1,22 to 1,53

M3.
TUB



RAIL OVER THE BITTER-R

FROM A TRAVEL ON HORSEBACK IN 1866.

ROMETER, WHERE FIGURES ARE SHOWN IN BRACKETS, BY OLIV

EROID OBSERVATIONS BY G.B.NICHOLSON.

Map 52. Lolo Trail System

Nicholson Profile Map B

G. B. NICHOLSON 1898

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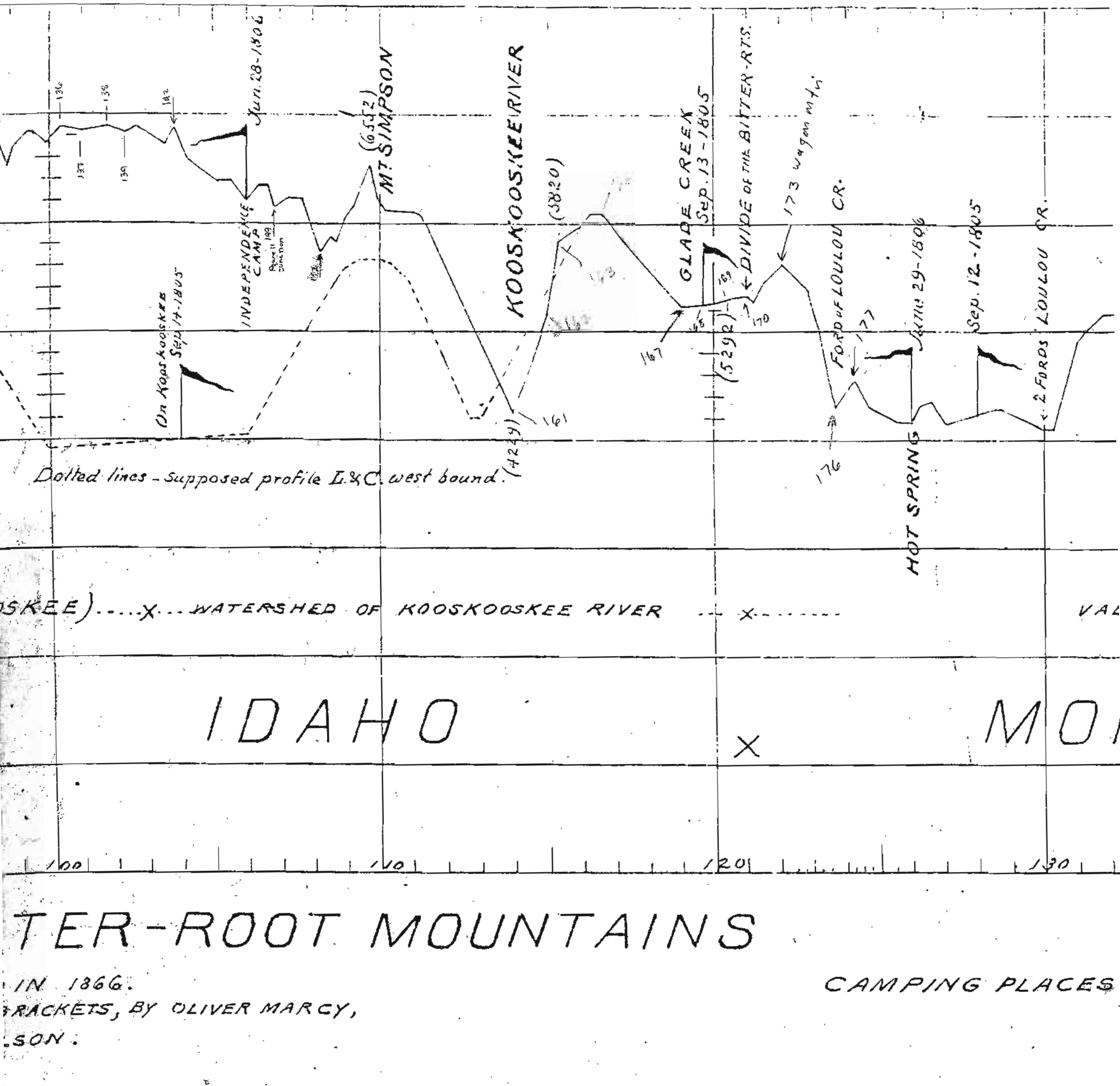
3

3,015 NICHOLSON-ELEVATION-PROFILE 1898

UBE-6

FOLDER F109



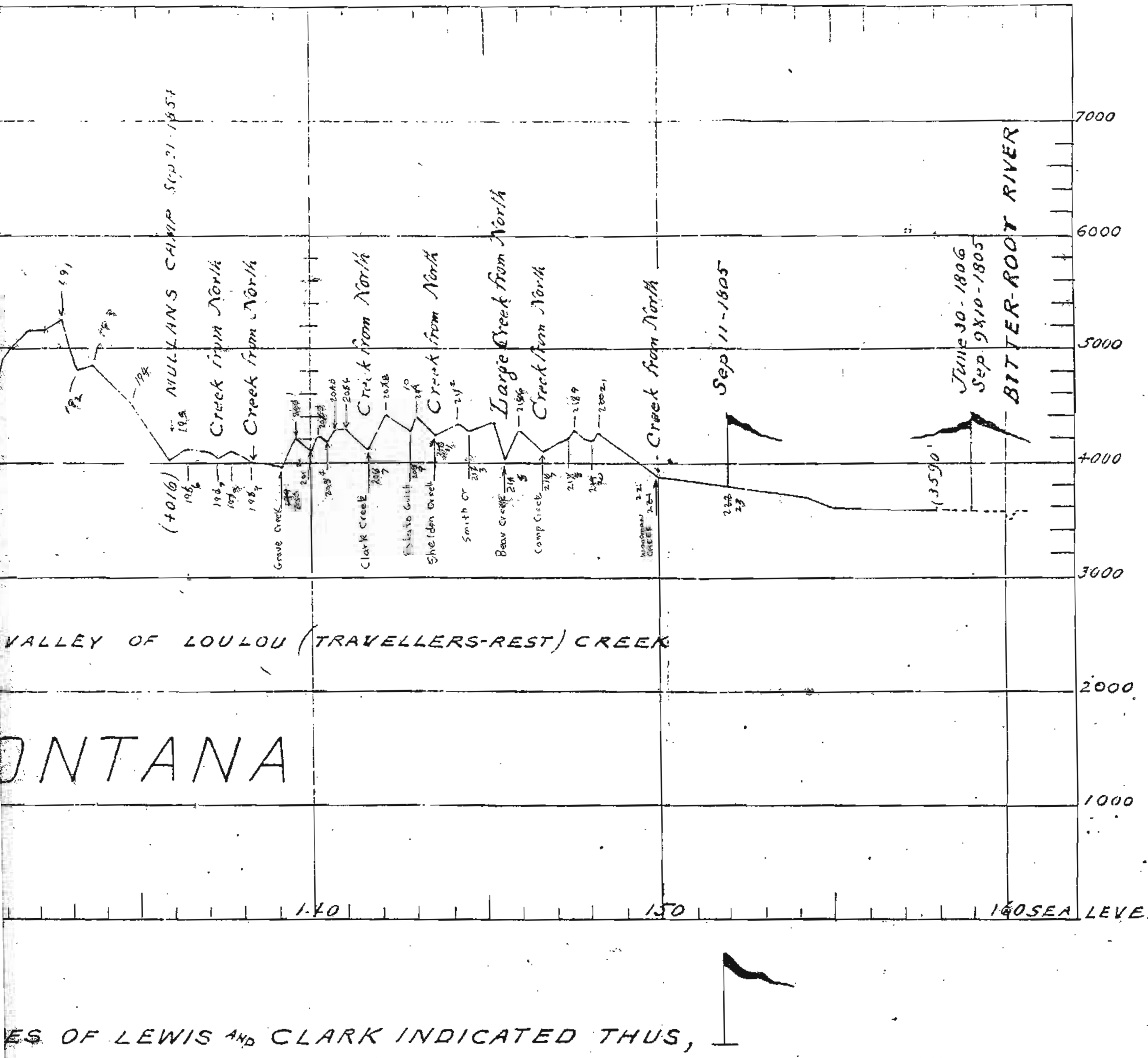
TER-ROOT MOUNTAINS

IN 1866.
RACKETS, BY OLIVER MARCY,
.SON.

CAMPING PLACES

This map was prepa
in 1898, documentin

This copy was obtain
archaeologists files. c



Map 53. Lolo Trail System

Nicholson Profile Map C

G. B. NICHOLSON 1898

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FOLDER F109

(C)

epared by George B. Nicholson
ing his survey of 1866.

ained in August 1990 from the
of the Clearwater National Forest

Note: this is the Norther
Perces trail and not
Bird-Truax Trail

Map 54. Lolo Trail System

Nicholson Hachure Map D

G. B. NICHOLSON 1898

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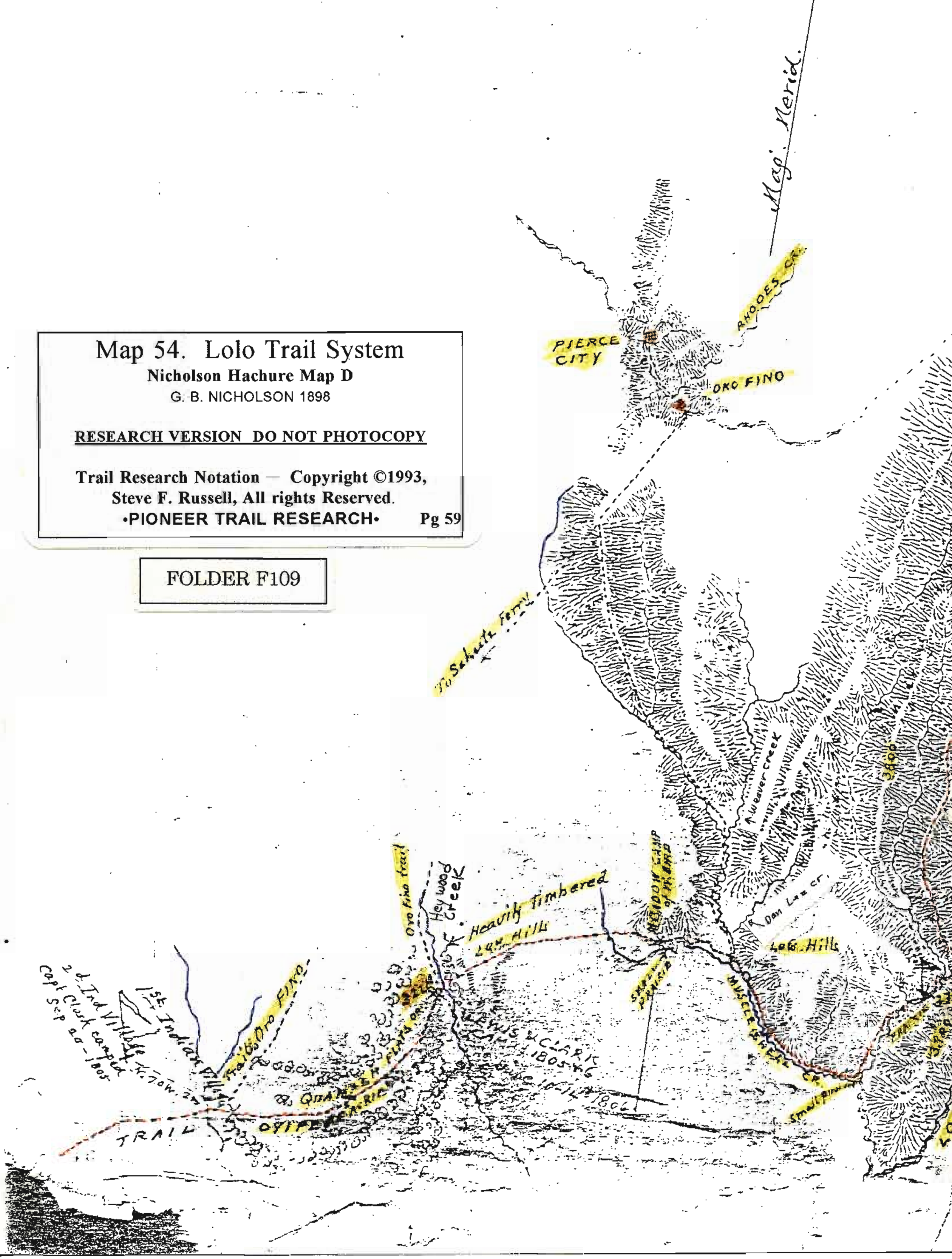
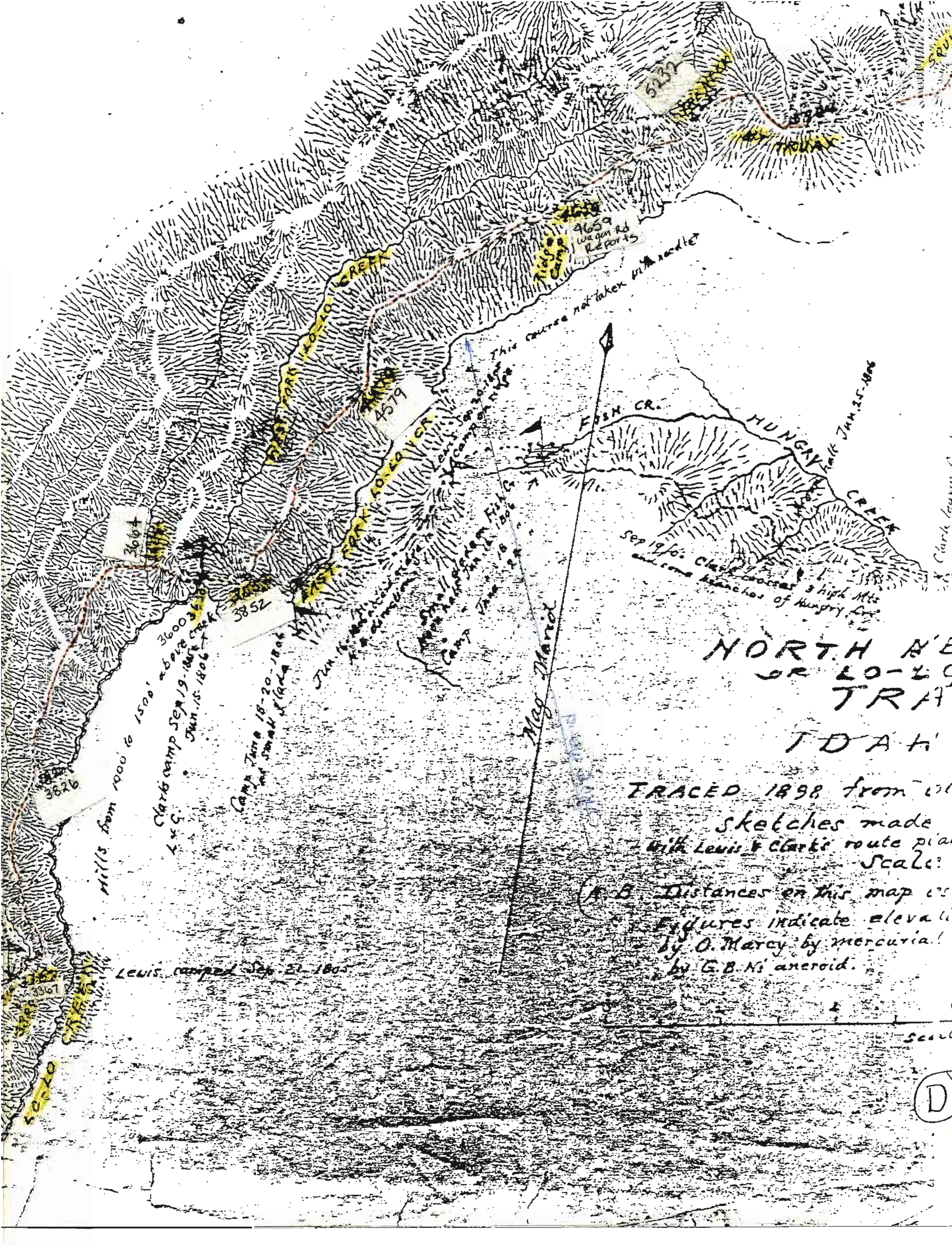
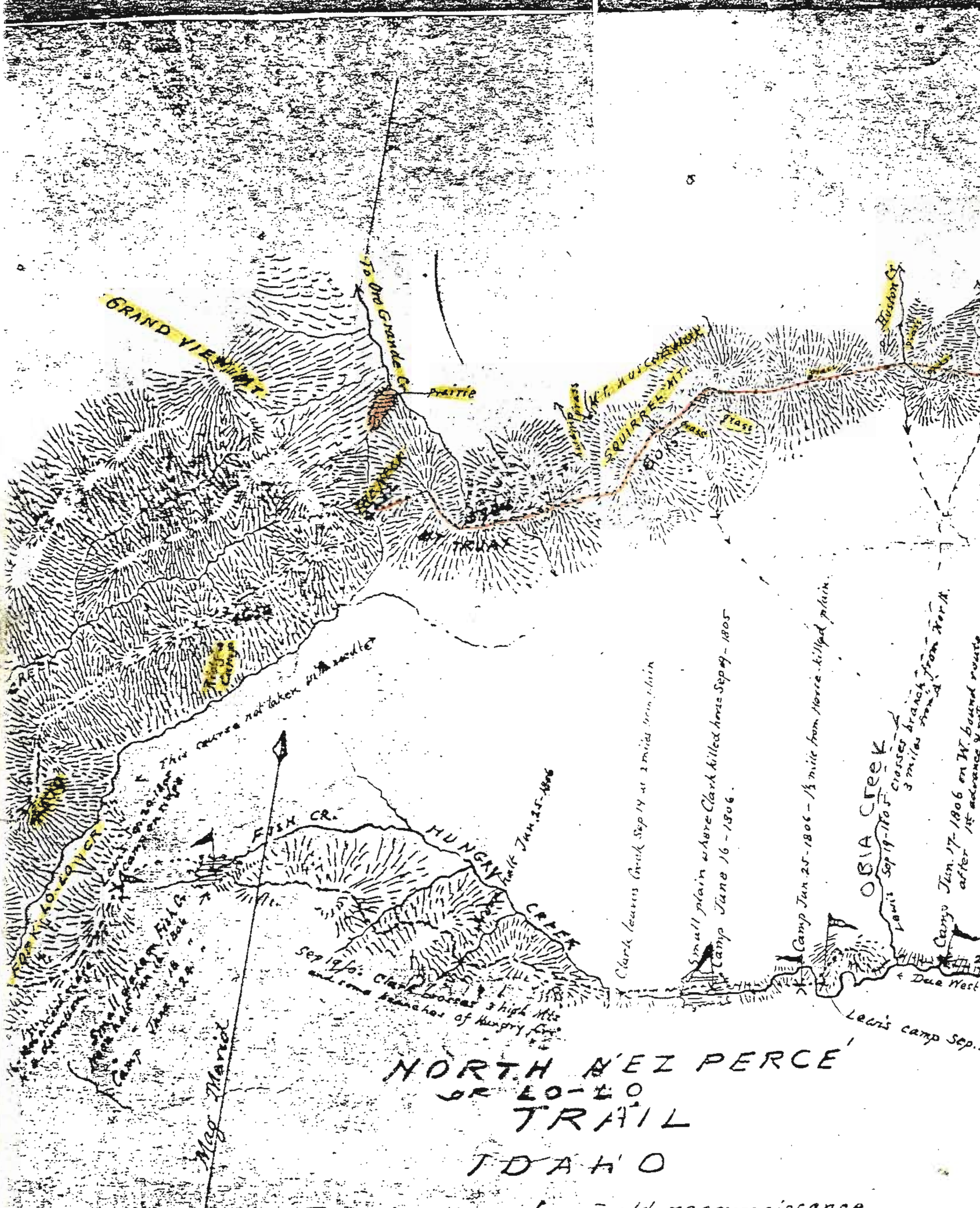
•PIONEER TRAIL RESEARCH• Pg 59

FOLDER F109

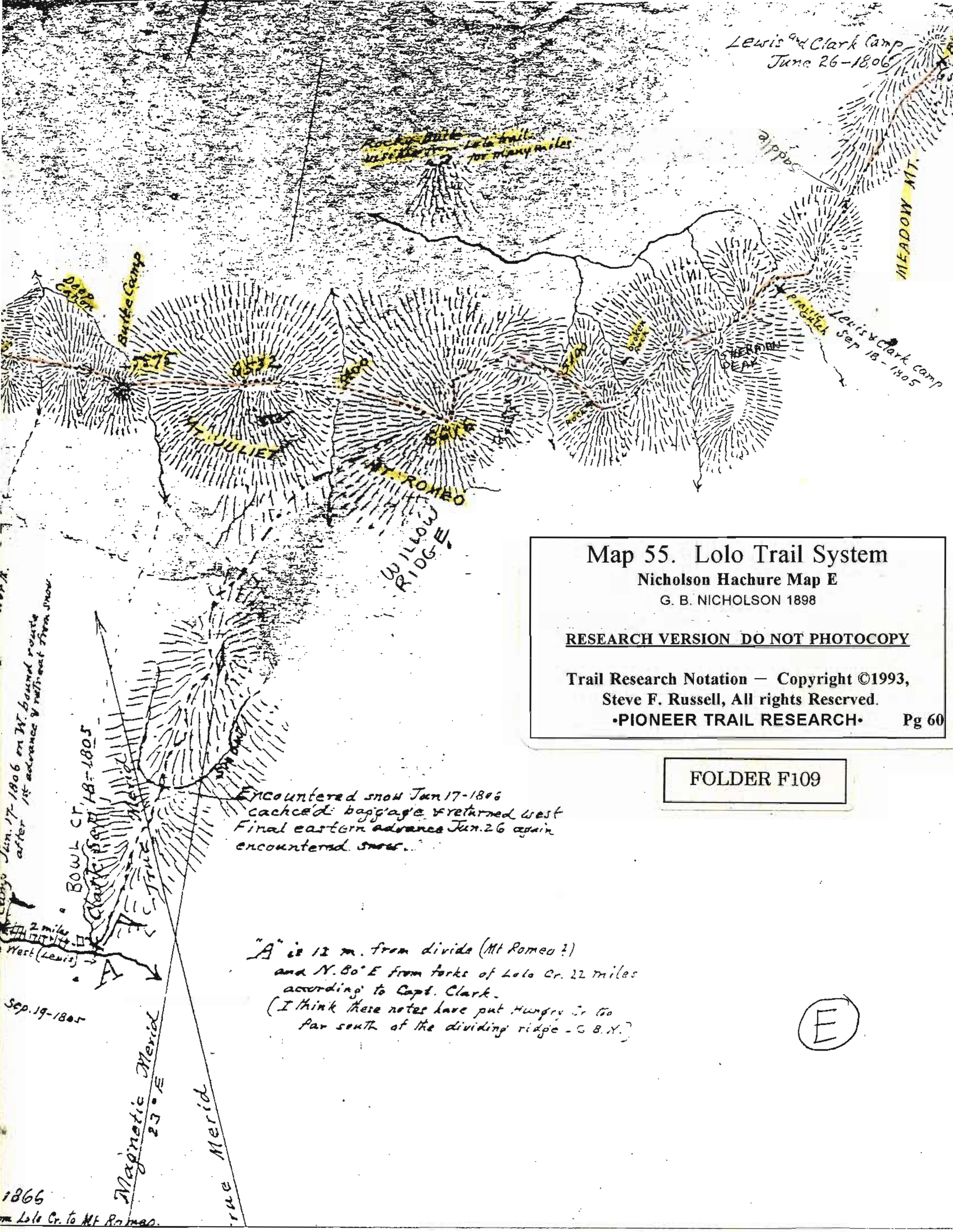



NORTH ...
OR LO-LO ...
TRA...
IDAH...
TRACED 1898 from ...
Sketches made ...
with Lewis & Clark's route pla...
Scale:
N.B. Distances on this map ...
Figures indicate elevati...
by O. Marcy by mercurial ...
by G.B.N. aneroid.
D
5232
MT. THOUAY
SQU...
4659 Wagon Rd Reports
Ridge Camp
This course not taken with needle
4579
WEST FORK LO-LO CREEK
EAST FORK LO-LO CR.
FISH CR.
HUNGRY CREEK
halt Jun. 25-1806
Sep 19/05 Clark crosses 3 high Mts and some branches of Hungry Cr.
Clark ...
Lewis Sep 20 1805 camp on ridge
Camp June 18 1806
Small Creek Fish Cr.
Jun 16 ...
3664
3852
3600
3600 above creek
Clark's camp Sep 19-1805
L & C. Jun. 15 1806
Camp June 18-20-1806 at small glade
Hills from 1000 to 1500 above ...
Mag. Merid.
3826
3367
Lewis camped Sep 21 1805
LO-LO
Scale


GRAND VIEW MT.
To Old Grande Cr.
prairie
MT. HUSCHEWAH
SQUIRREL MT.
grass
grass
Grass
MT. TRUAX
Huston Cr.
This course not taken with saddle
FISH CR.
HUNGRY CREEK
Halt Jun. 25-1806
Lewis Sep. 20-1805 camp on ridge
Camp June 18-24
Sep 19-05: Clark crosses 3 high Mts and some branches of Hungry Cr.
Mag. Merid.
FORK LO-LO CR.
Clark leaves Creek Sep 14 at 2 miles from plain
Small plain where Clark killed horse Sep 19-1805
Camp June 16-1806.
Camp Jun 25-1806 – 1½ mile from Horse-killed plain.
OBIA Creek
Lewis Sep 19-1805 crosses branch from North 3 miles from 1st
Camp Jun. 17-1806 on W. bound route after 1st advance
Due West
Lewis camp Sep.

NORTH NEZ PERCE
OR LO-LO
TRAIL
IDAHO

TRACED 1898 from old reconnoissance
Sketches made by G. B. Nicholson in 186
platted from their descriptions from Lo



Rocky Butte visible from Lolo trail for many miles

Camp Jun. 17-1806 on W. bound route after 1st advance & retreat from snow.

Clark's Sep 18-1805

Encountered snow Jun 17-1806 cached baggage & returned west Final eastern advance Jun. 26 again encountered snow...

"A" is 12 m. from divide (Mt Romeo ?) and N. 80° E from forks of Lolo Cr. 22 miles according to Capt. Clark.
(I think these notes have put Hungry Cr too far south of the dividing ridge - G.B.N.)

Map 55. Lolo Trail System

Nicholson Hachure Map E

G. B. NICHOLSON 1898

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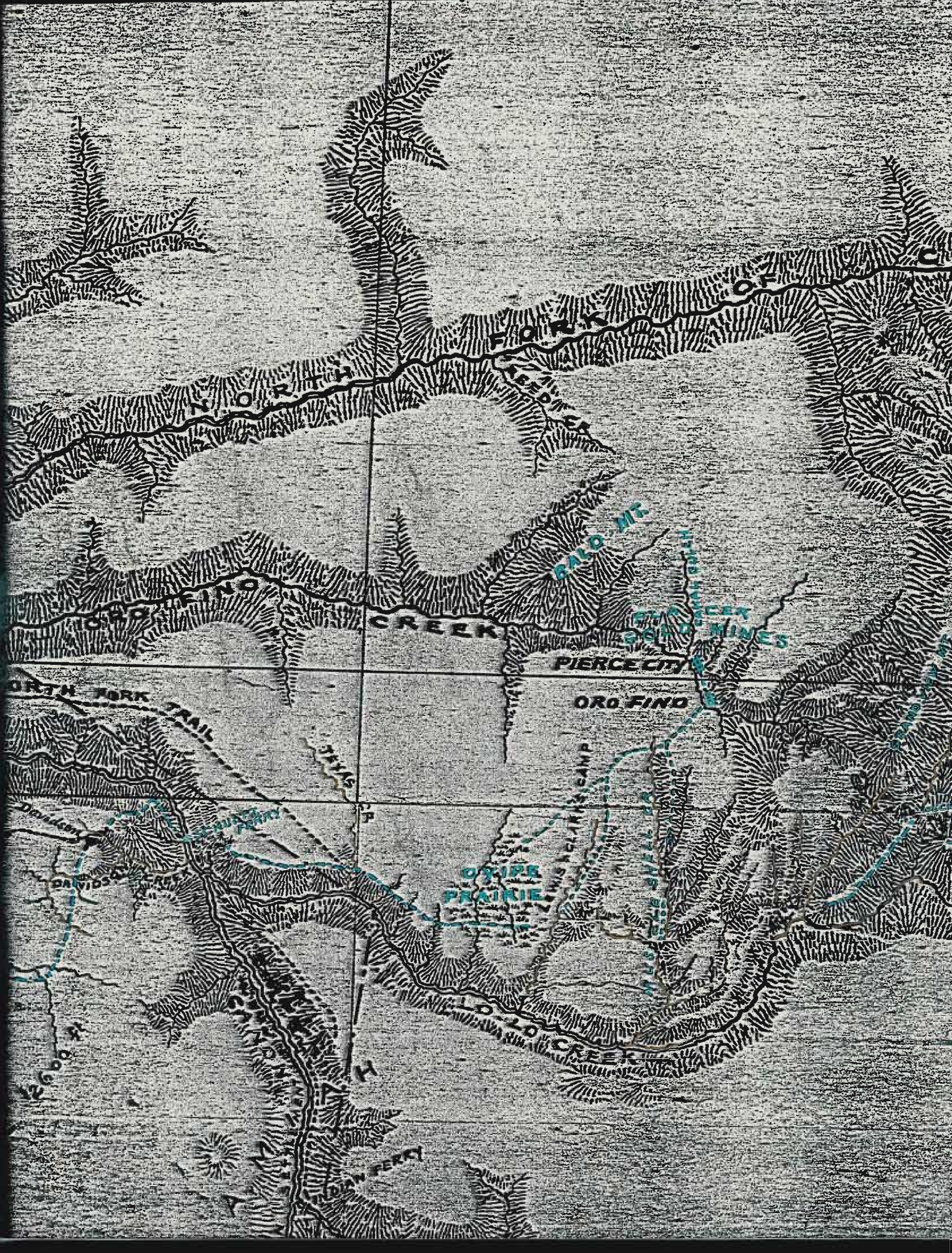
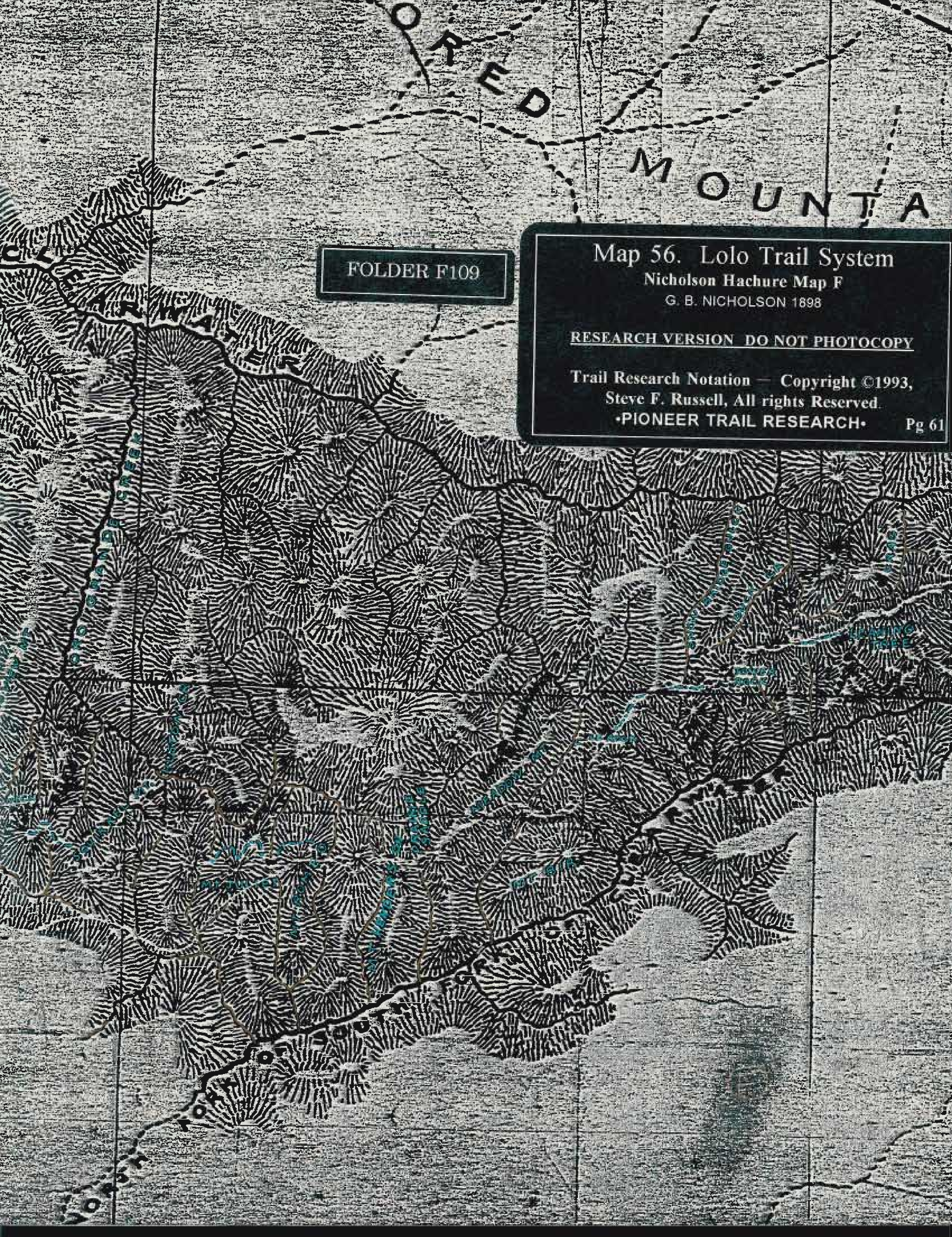
FOLDER F109

E


NORTH FORK OF C
REED'S CR.
ORO FINO CREEK
BALD MT.
PLACER GOLD MINES
PIERCE CITY
ORO FINO
NORTH FORK TRAIL
TEXAS
OYIPE PRAIRIE
LOLO CREEK
Davidson
DAVIDSON CREEK
FERRY
INDIAN FERRY
12600 ft



Map 56. Lolo Trail System

Nicholson Hachure Map F

G. B. NICHOLSON 1898

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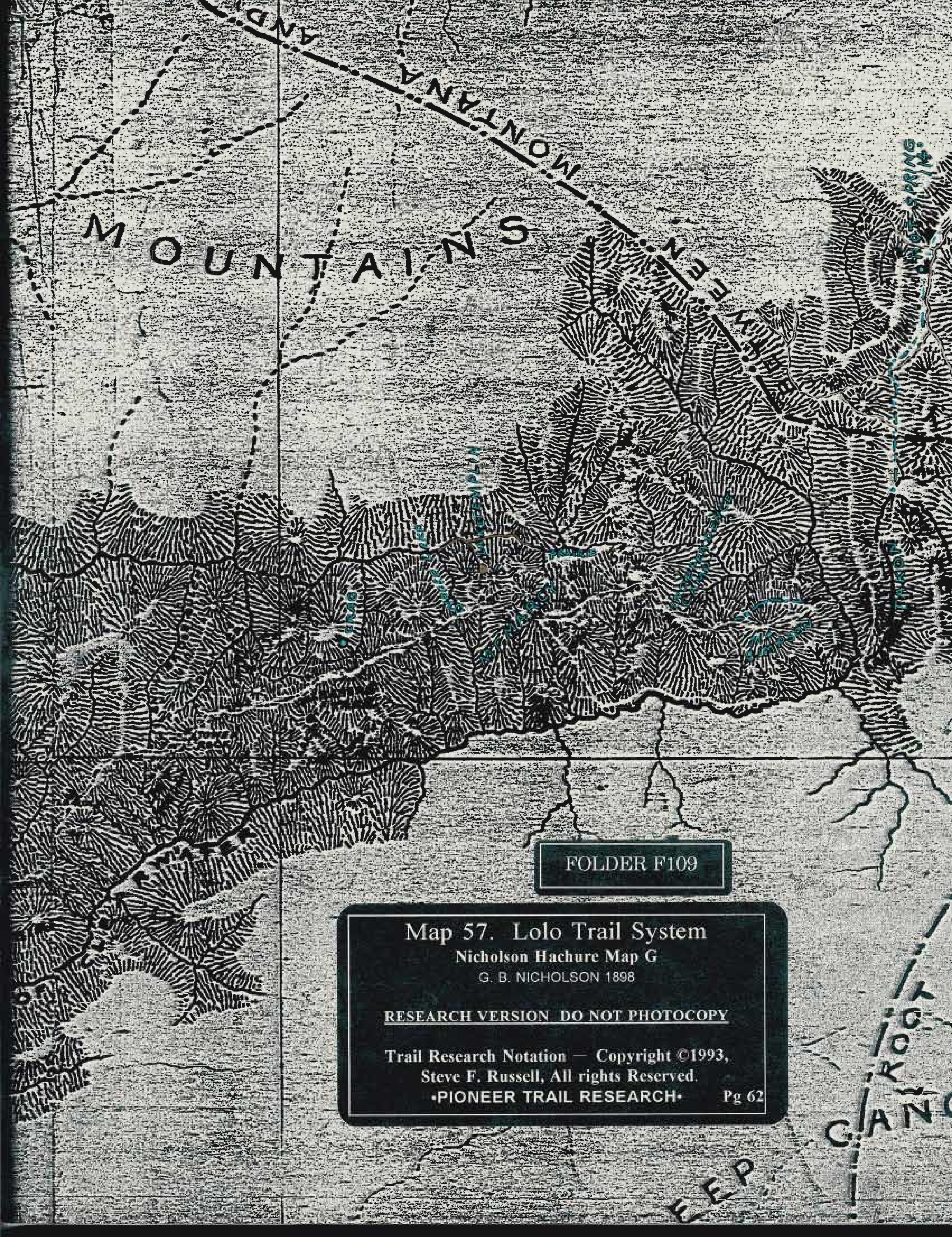

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Map 57. Lolo Trail System

Nicholson Hachure Map G

G. B. NICHOLSON 1898

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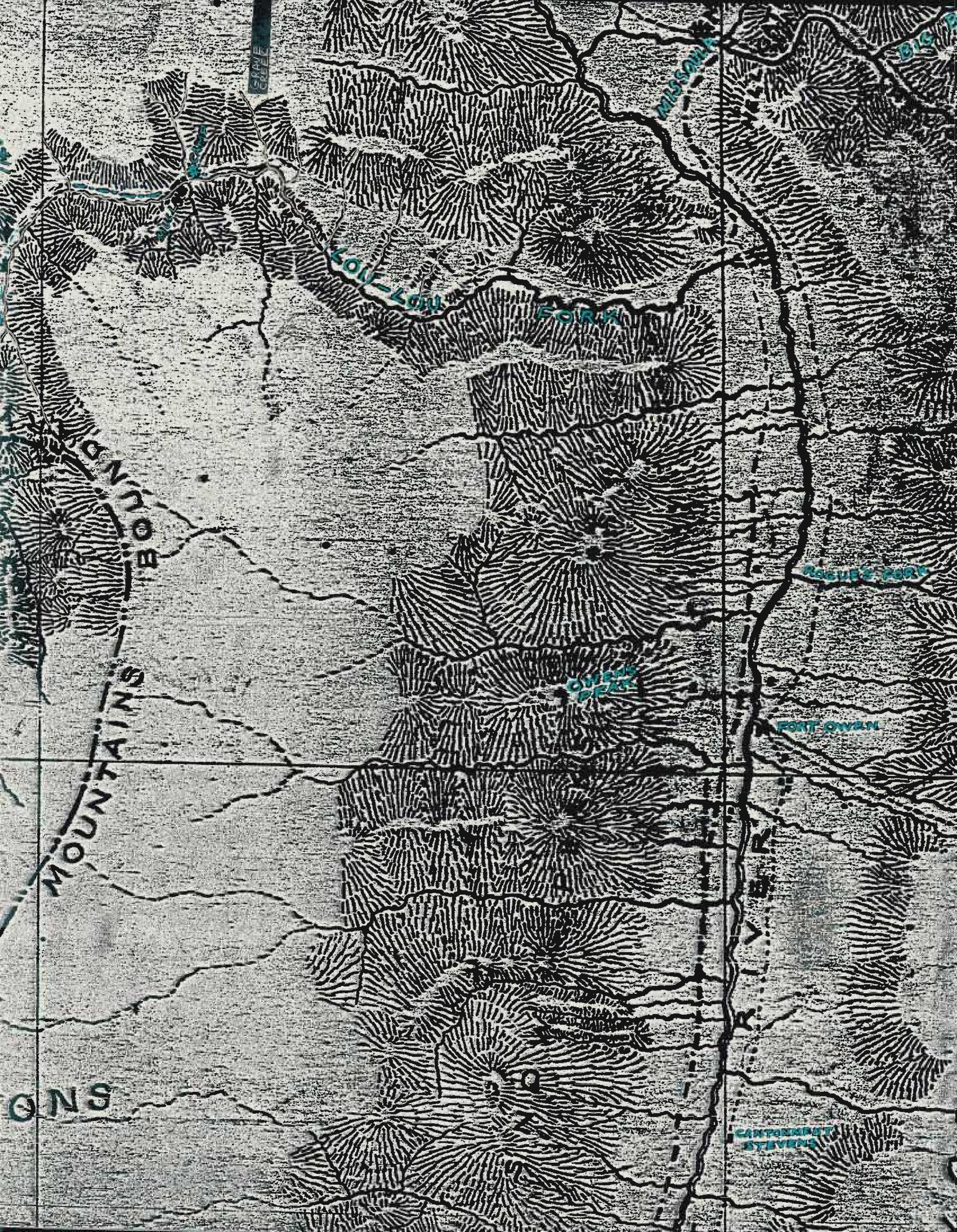
BIG
MISSOULA
LOU-LOU FORK
BOUND
ROGUE'S FORK
OWENS PEAK
FORT OWEN
MOUNTAINS
RIVER
ONS
CANTONMENT STEVENS

Bitter Root Forest Reserve
CIRCA 1897
Tube 2
RG 49 Idaho #7 OMF
Research

FOLDER F109

Map 58. Lolo Trail System

Bitter Root Forest Reserve Circa 1897
RG 49 Idaho #7 OMF

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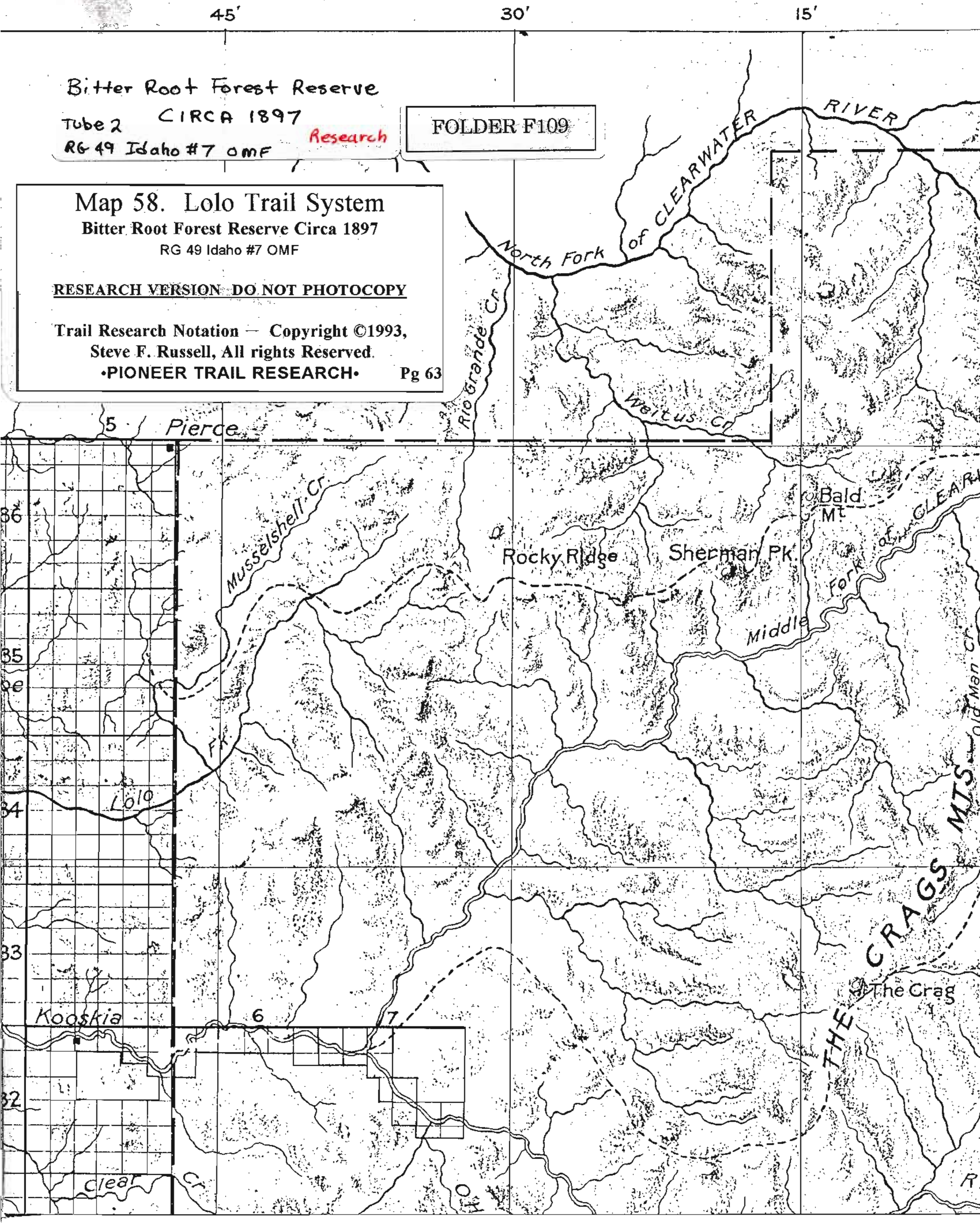
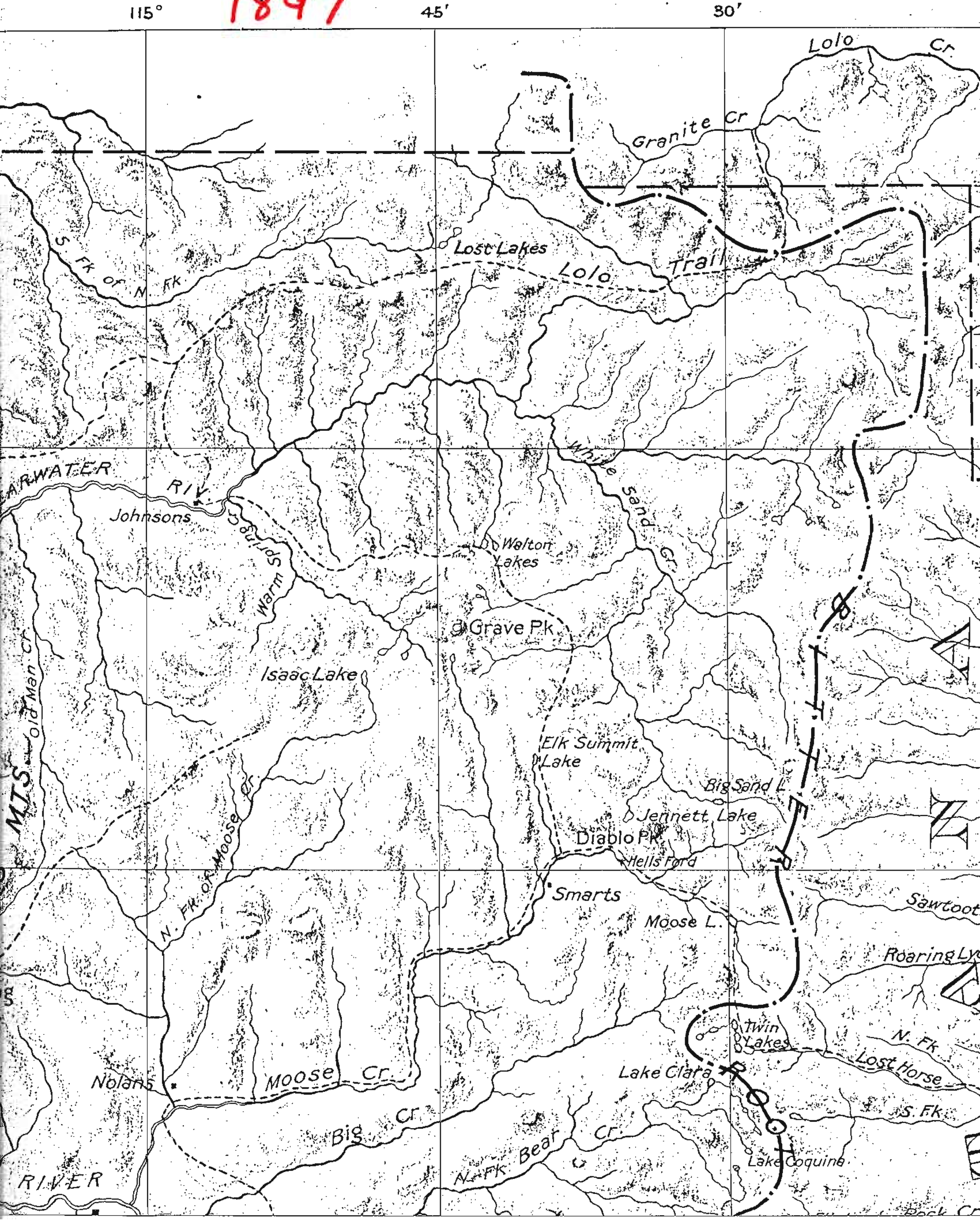
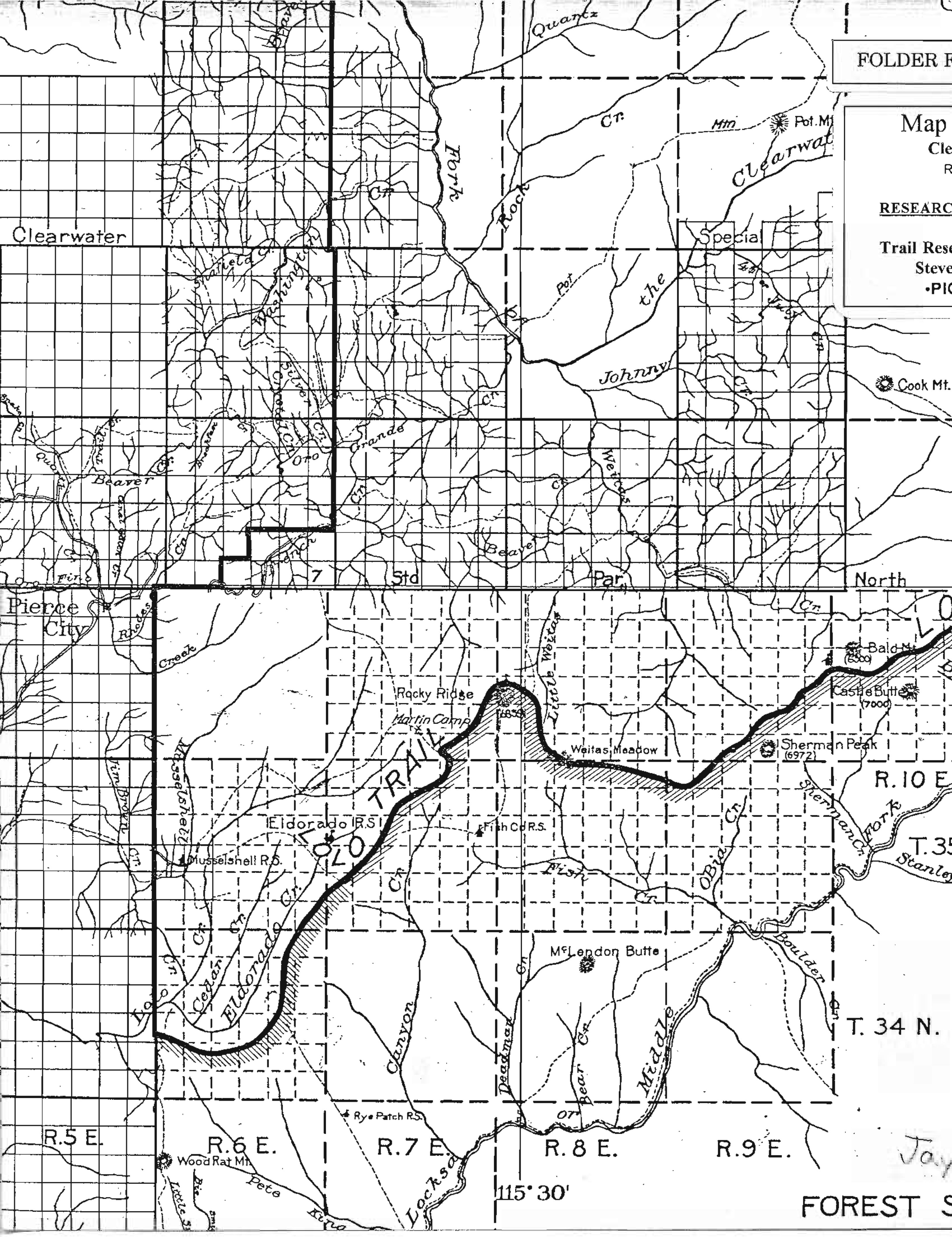


1897


115°
45'
30'
Lolo Cr.
Granite Cr
S. Fk of N. Fk
Lost Lakes
Lolo Trail
CLEARWATER RIV.
Johnsons
Warm Spring Cr.
White Sand Cr.
Walton Lakes
Grave Pk.
Isaac Lake
Old Man Cr.
MTS.
Elk Summit Lake
Big Sand L.
Jennett Lake
Diablo Pk.
Hells Ford
Smarts
N. Fk. of Moose Cr.
Moose L.
Sawtoot
Roaring Ly
Twin Lakes
N. Fk.
Lost Horse
Lake Clara
S. Fk.
Nolans
Moose Cr.
Big Cr.
N. Fk. Bear Cr.
Lake Coquina
RIVER
Rock Cr
BITTER ROOT


FOLDER R
Map
Cle
R
RESEARC
Trail Rese
Steve
•PIC
Clearwater
Quartz
Fork
Cr.
Mtn
Pot. Mt
Clearwat
the
Rock
Pot
Special
Johnny
Cook Mt.
Washington
Shafield Cr.
Silver
Cr.
Oro
Grande
Beaver Cr.
Weitas
Beaver
French
7
Std
Par.
North
Pierce City
Rhodes
Creek
Musselshell
Tim Brown
Rocky Ridge
Martin Camp
(6839)
Little Weitas
Weitas Meadow
Bald Mt
(6500)
Castle Butte
(7000)
Sherman Peak
(6972)
R.10 E
Sherman Cr.
Fork
T.35
Stanley
LOLO TRAIL
Eldorado R.S
Fish Cr. R.S.
Musselshell R.S.
Fish Cr.
O'Bia Cr.
Boulder
McLendon Butte
Cedar Cr.
Eldorado Cr.
Lolo Cr.
Canyon
Deadman
Bear Cr.
Middle
T. 34 N.
Rye Patch R.S.
R.5 E.
R.6 E.
R.7 E.
R.8 E.
R.9 E.
Wood Rat Mt.
Pete King
Lochsa
115° 30'
FOREST S
Jay

1911

ER F109

ap 59. Lolo Trail System
Clearwater National Forest 1911
RG 95 Series 126 Clearwater N.F.

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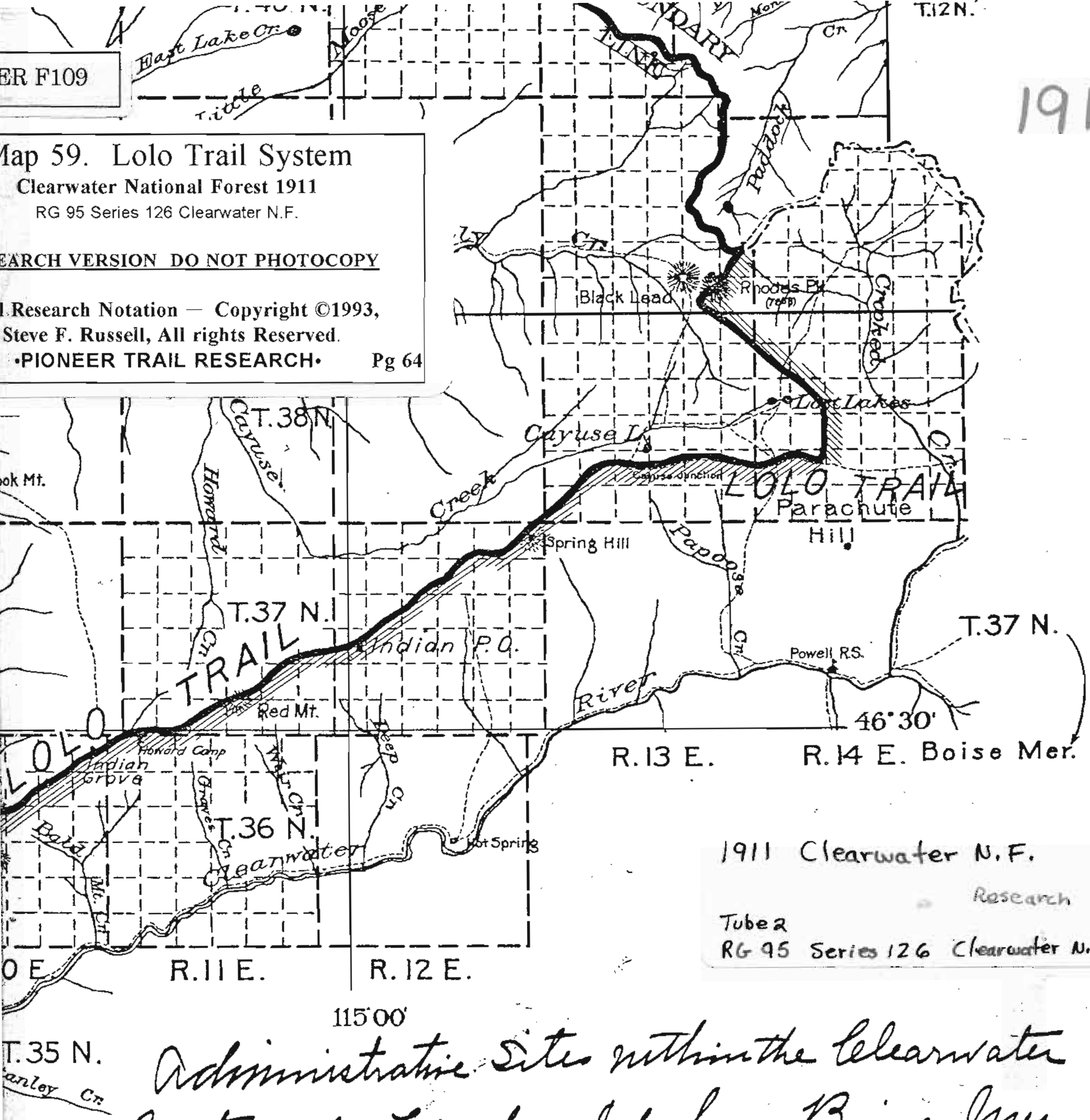


1911 Clearwater N.F.
Research
Tube 2
RG 95 Series 126 Clearwater N.F.

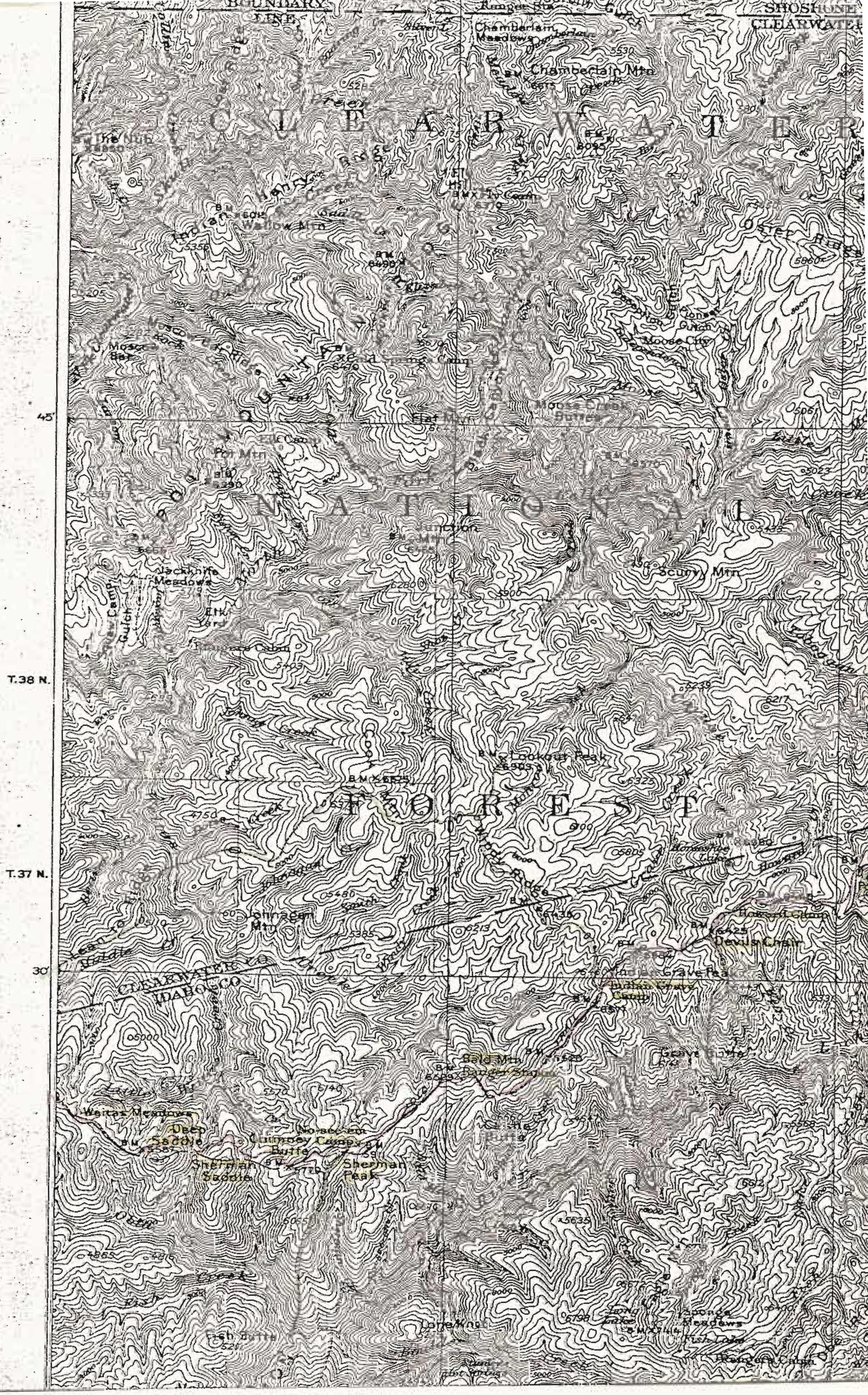
Administrative Sites within the Clearwater
National Forest. Idaho. Boise Mer.

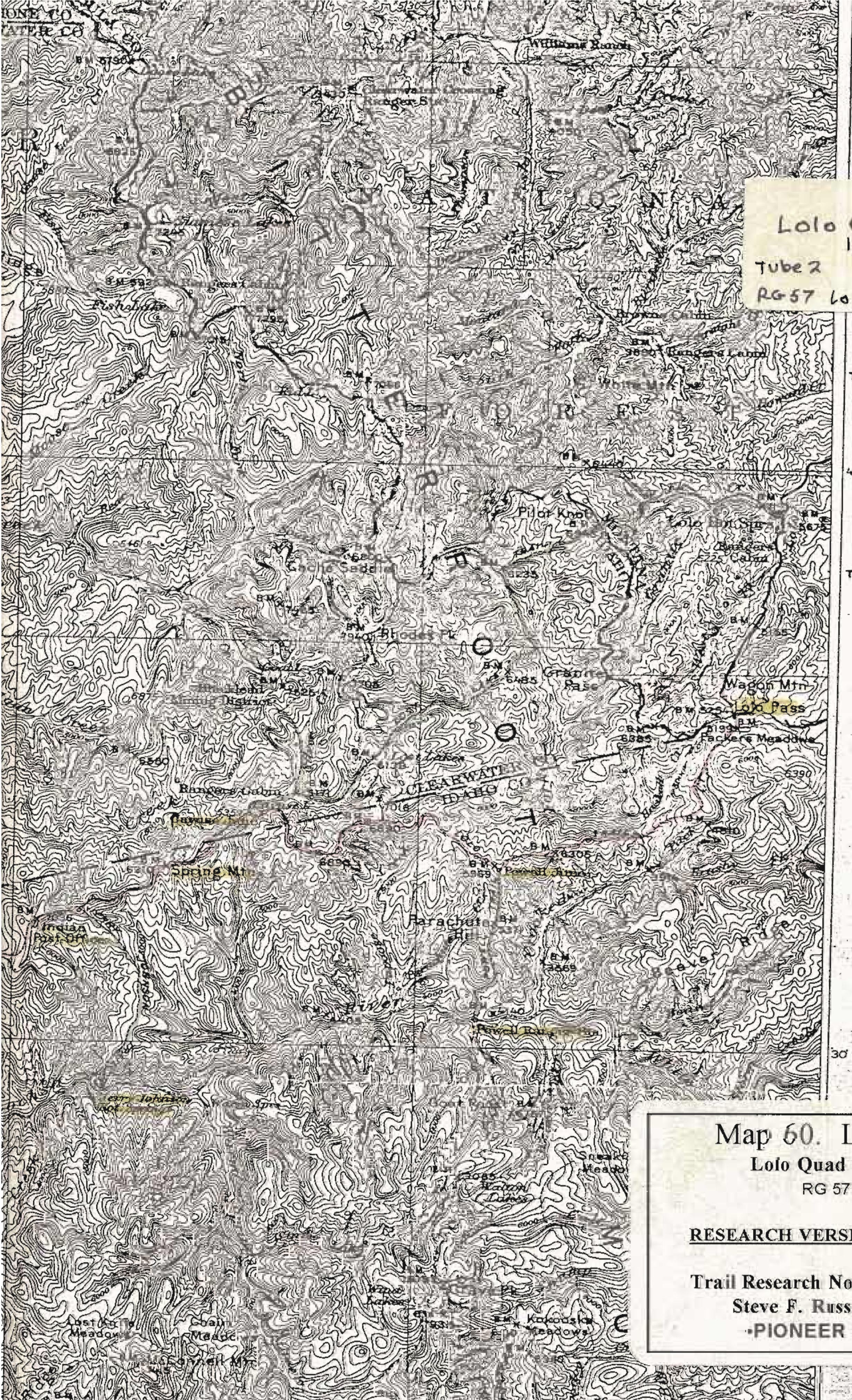
T. 35 N, R. 6 E
Musselshell Adm. Site
NESE sec 19 & NWSW sec. 20 = 80 acres
Withdrawn Dec. 20, 1907.

N.

Tay Turner

SERVICE, U. S. DEPT. OF AGRICULTURE


BOUNDARY LINE
SHOSHONE
CLEARWATER
Chamberlain Meadows
Chamberlain Mtn
The Nub
C L E A R W A T E R
Henry Creek
Wallow Mtn
Fly Camp
Oster Ridge
Moose City
Moose Creek Buttes
Flat Mtn
Elk Camp
Pot Mtn
N A T I O N A L
Junction Mtn
Scurvy Mtn
Jackknife Meadows
Elk Yard
45'
T.38 N.
T.37 N.
30'
Lookout Peak
F O R E S T
Johnagan Mtn
Horseshoe Lake
Howard Camp
Devils Chair
Indian Grave Peak
Indian Grave Camp
CLEARWATER CO.
IDAHO CO.
Bald Mtn Ranger Sta.
Grave Butte
Weitas Meadows
Deep Saddle
No-see-um Camp
Chimney Butte
Sherman Saddle
Sherman Peak
Castle Butte
Fish Butte
Lone Knob
Long Lake
Fish Lake
Hot Springs
Ranger's Cabin
Moose Creek
Creek
Fish Creek



1911-1913
Lolo Quad - Mont
1:250,000
Tube 2
Research
RG 57 Lolo Quad (mont)

1911

FOLDER F109

Map 60. Lolo Trail System

Lolo Quad - Montana 1:250,000

RG 57 Lolo Quad (Mont)

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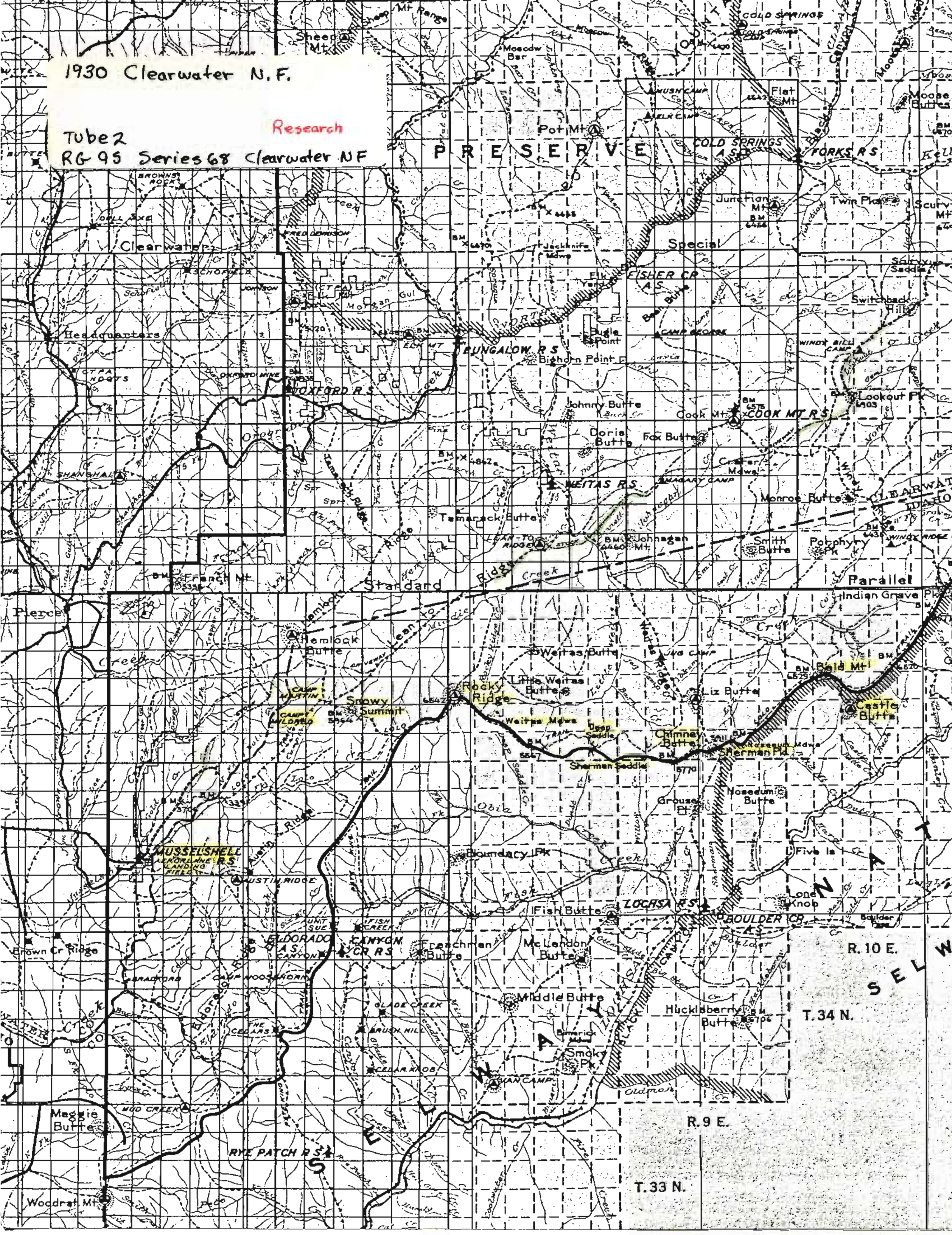
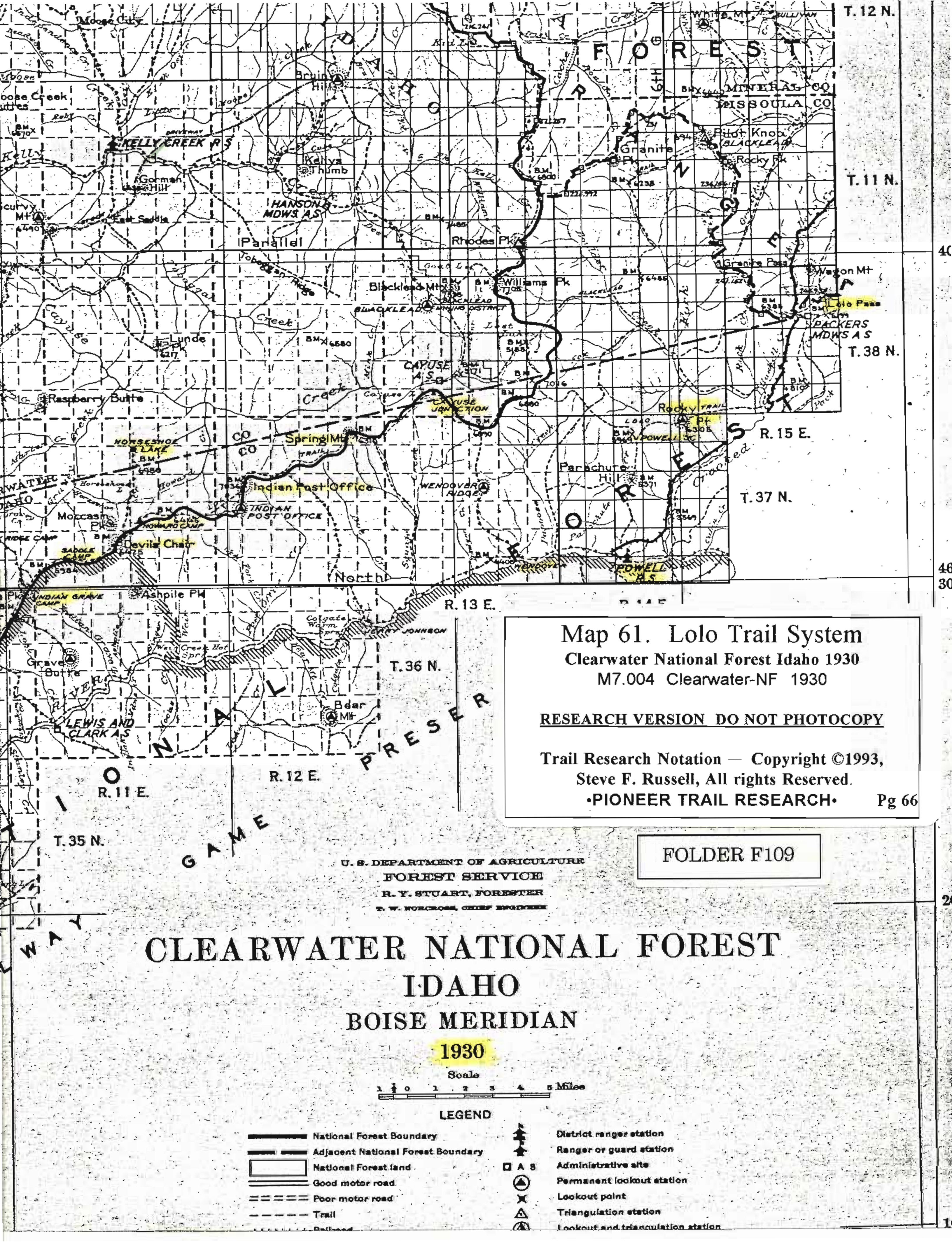
1930 Clearwater N.F.

Research

Tube 2
RG 95 Series 68 Clearwater NF





Map 61. Lolo Trail System

Clearwater National Forest Idaho 1930

M7.004 Clearwater-NF 1930

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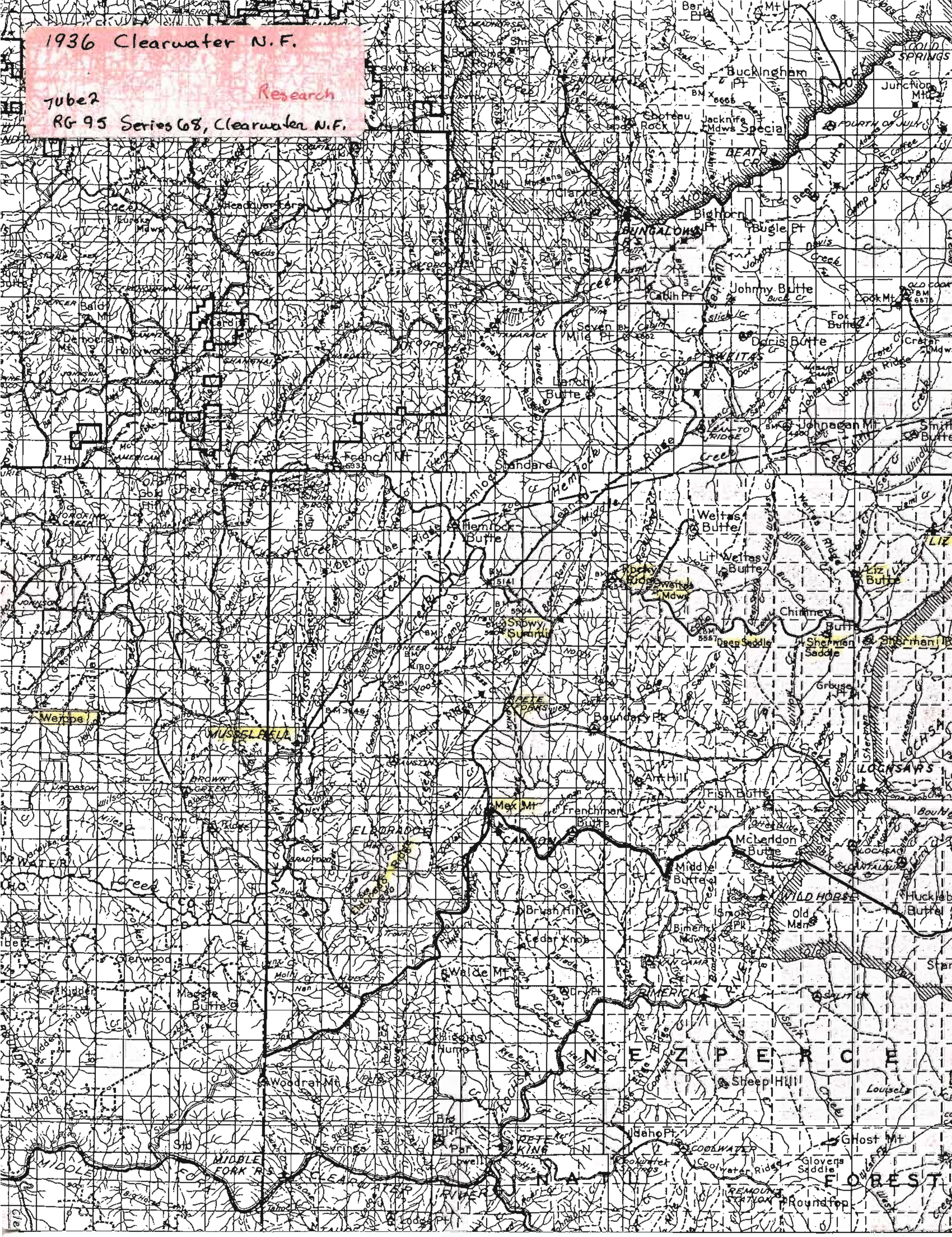
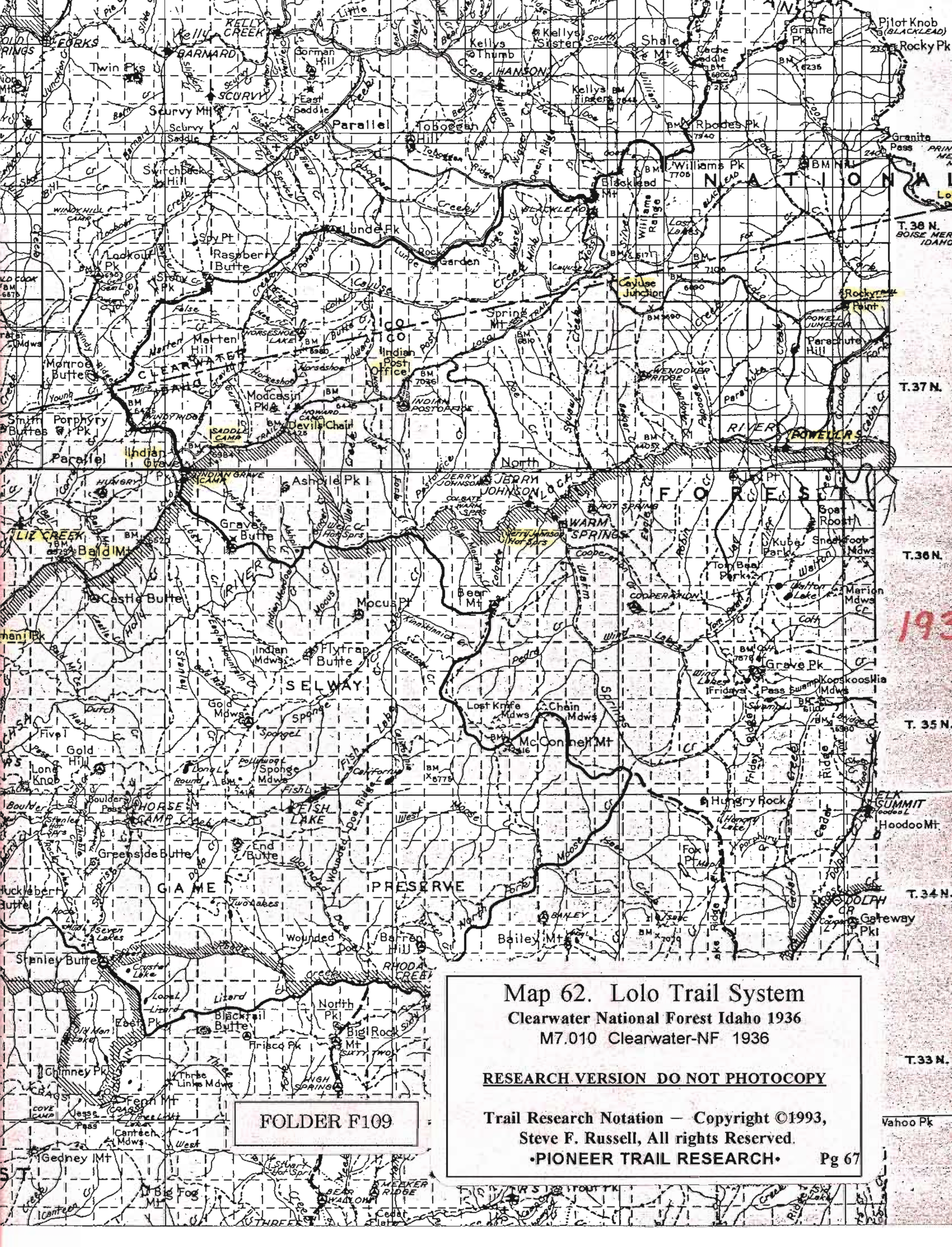
1936 Clearwater N.F.

Research

Tube 2
RG 95 Series 68, Clearwater N.F.





FOLDER F109

Map 62. Lolo Trail System

Clearwater National Forest Idaho 1936

M7.010 Clearwater-NF 1936

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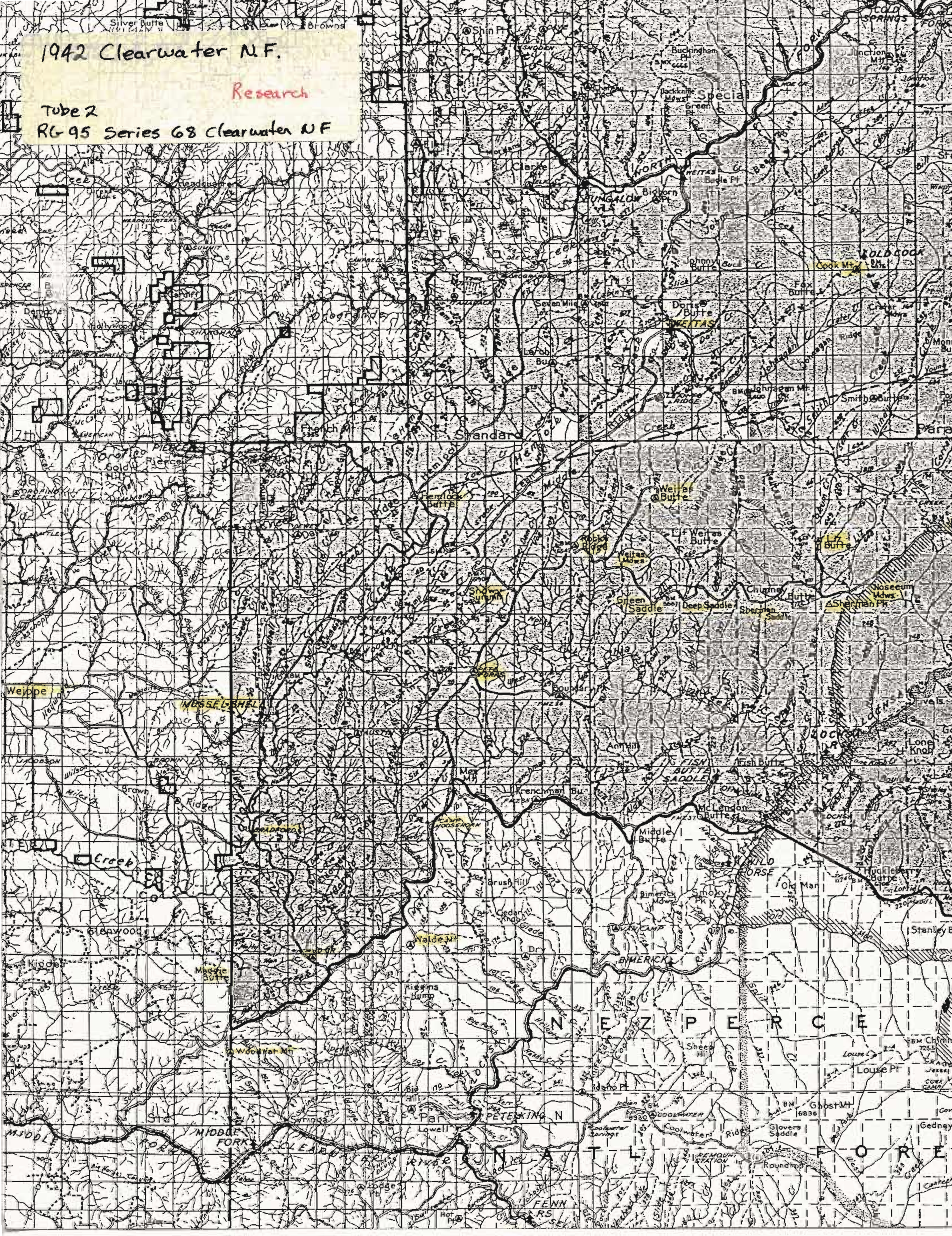
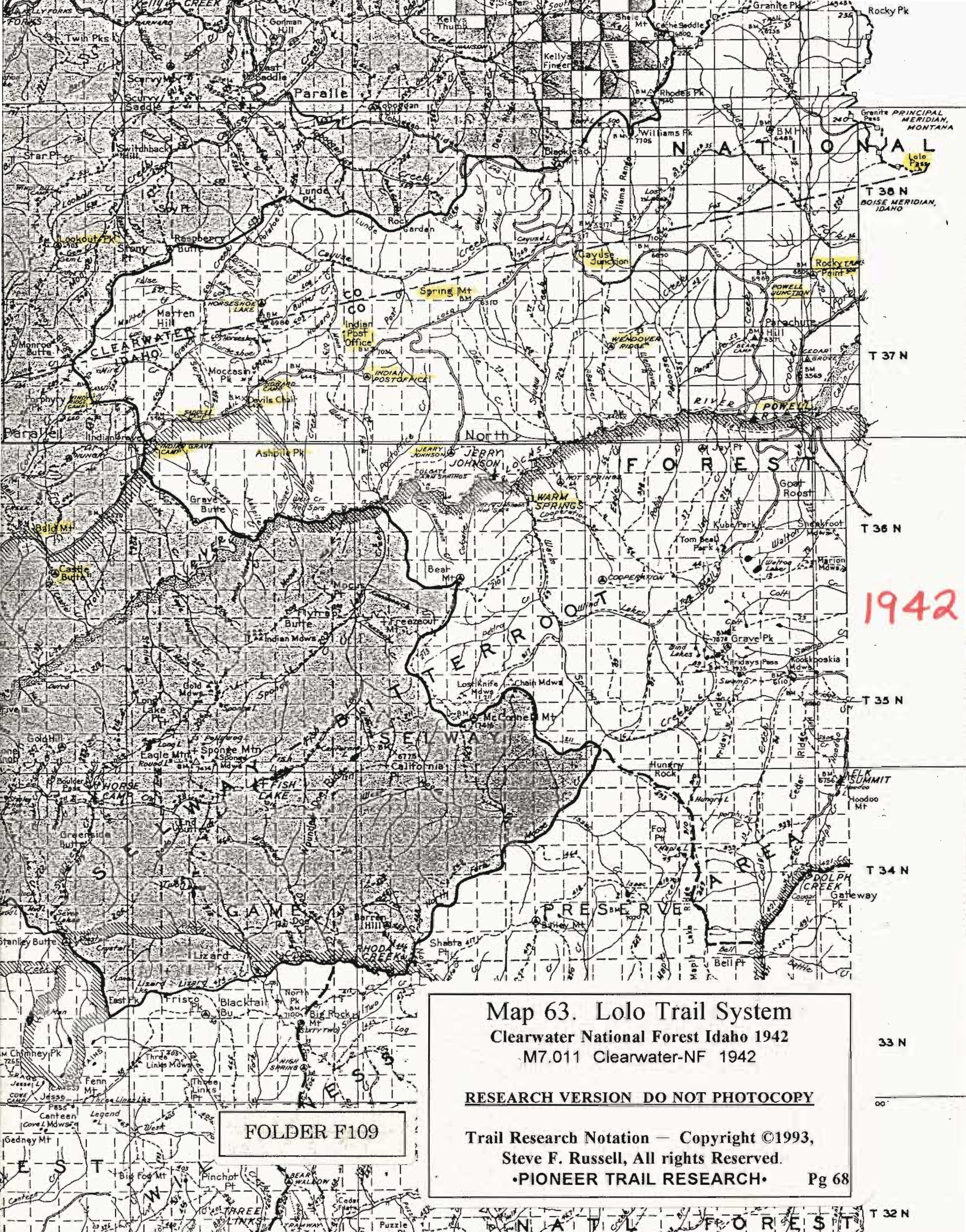


1942 Clearwater N.F.

Research

Tube 2
RG 95 Series 68 Clearwater NF



Map 63. Lolo Trail System

Clearwater National Forest Idaho 1942

M7.011 Clearwater-NF 1942

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FOLDER F109

1942

Map 64. Lolo Trail System

Nez Perce Reservation 1862 (Archive)

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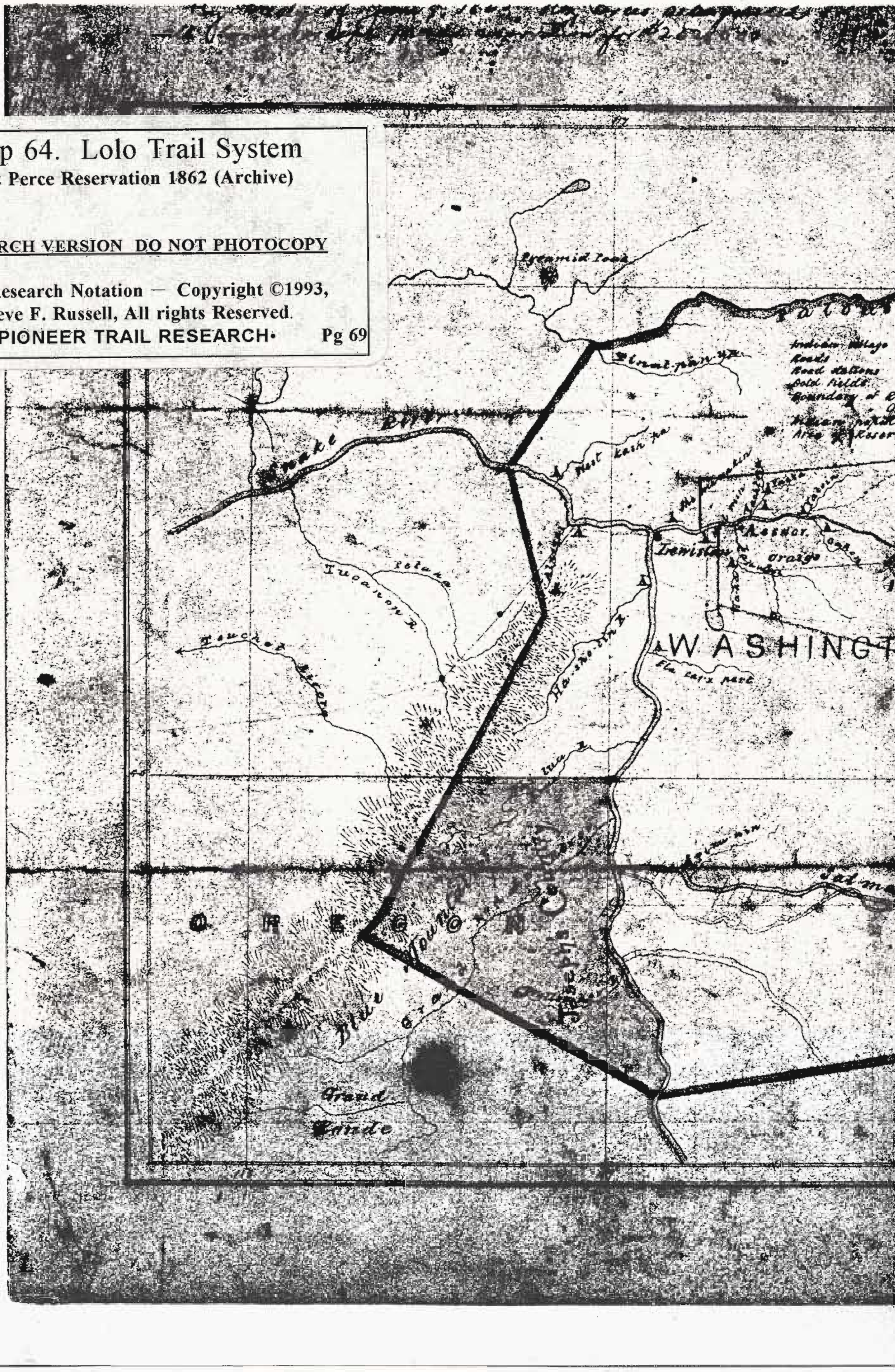
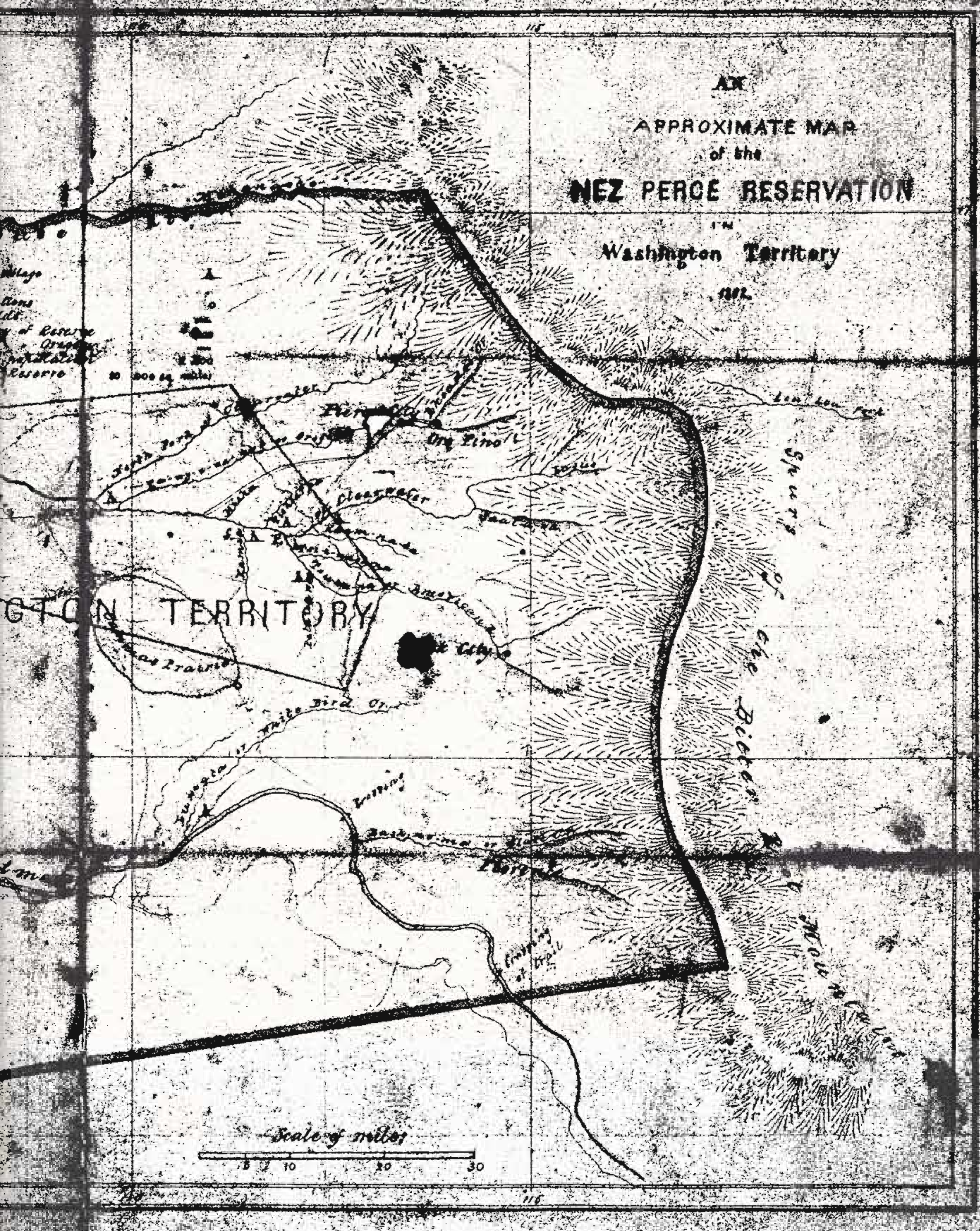
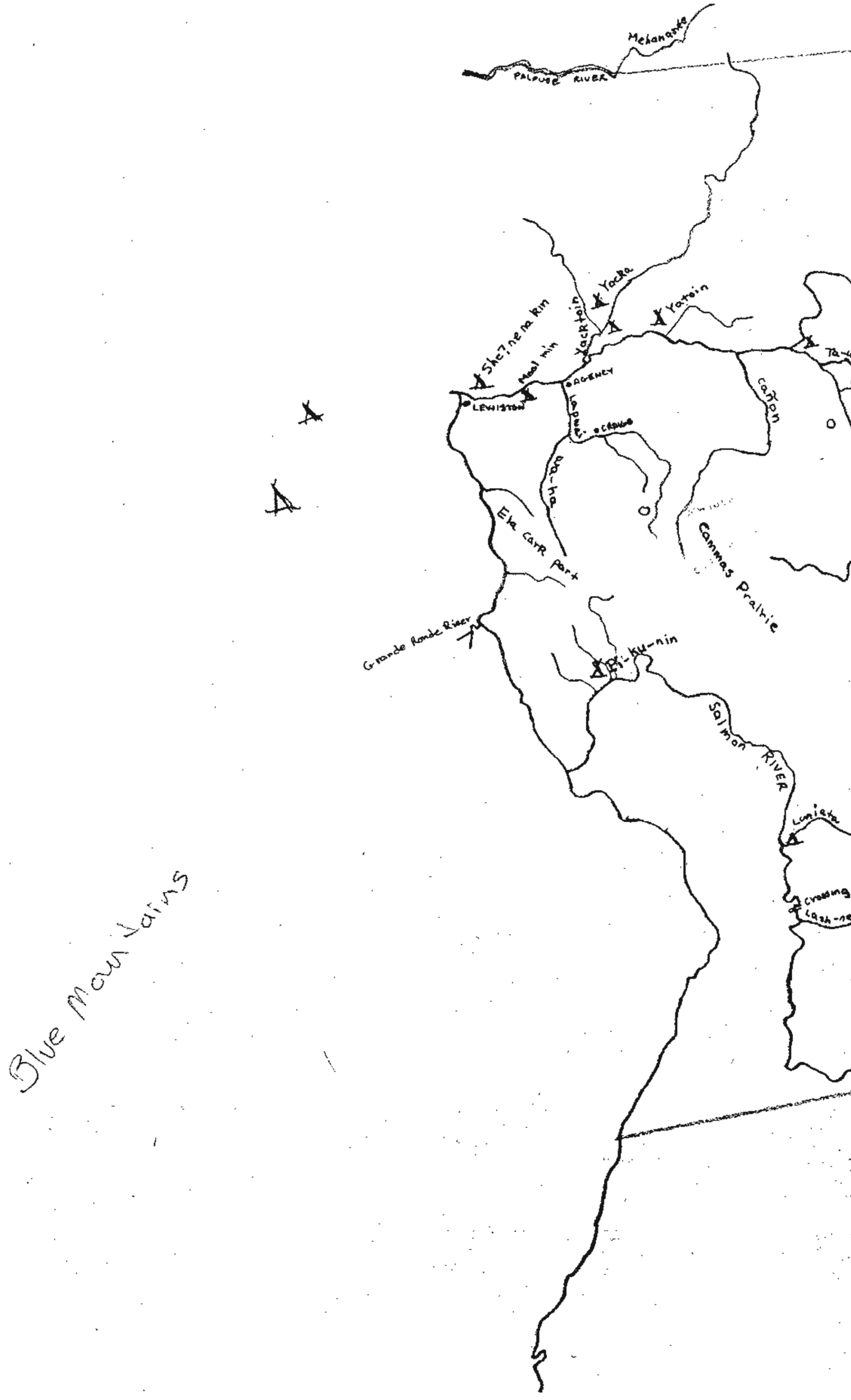




FOLDER F109

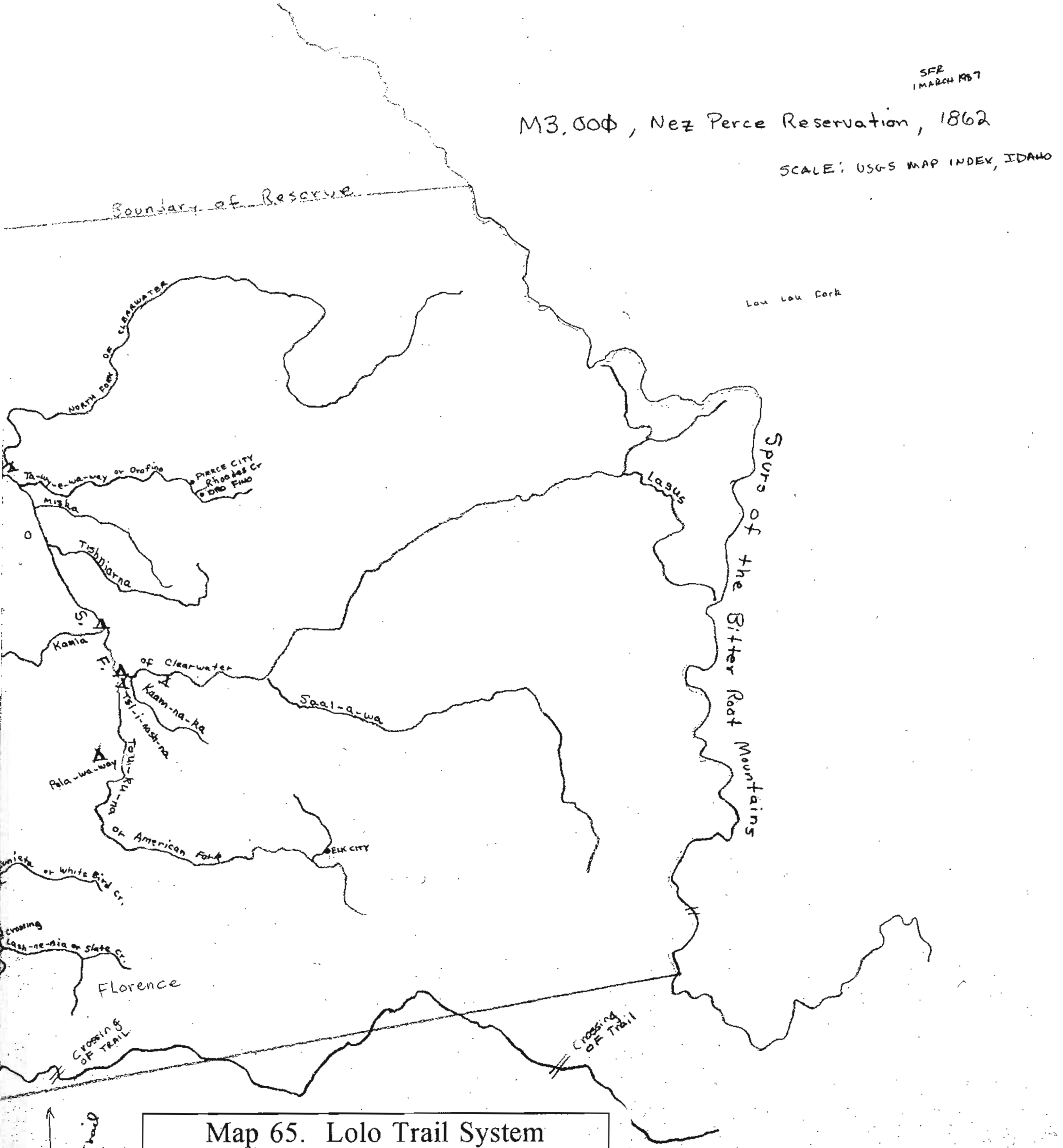
SFR: TUBE 1


Mehanaske
PALOUSE RIVER
Yocka
Yatoin
Yackatoin
She7, ne na kin
Mool min
LEWISTON
AGENCY
Lapwai
CRAIG
wa-ha
cañon
Ela carr Part
Cammas Prairie
Grande Ronde River
Pi-ku-nin
Salmon RIVER
Lamieta
Crossing
Blue Mountains

SFR
1 MARCH 1987

M3,000 , Nez Perce Reservation, 1862

SCALE: USGS MAP INDEX, IDAHO



Map 65. Lolo Trail System

Nez Perce Reservation 1862 (Modern Topo)

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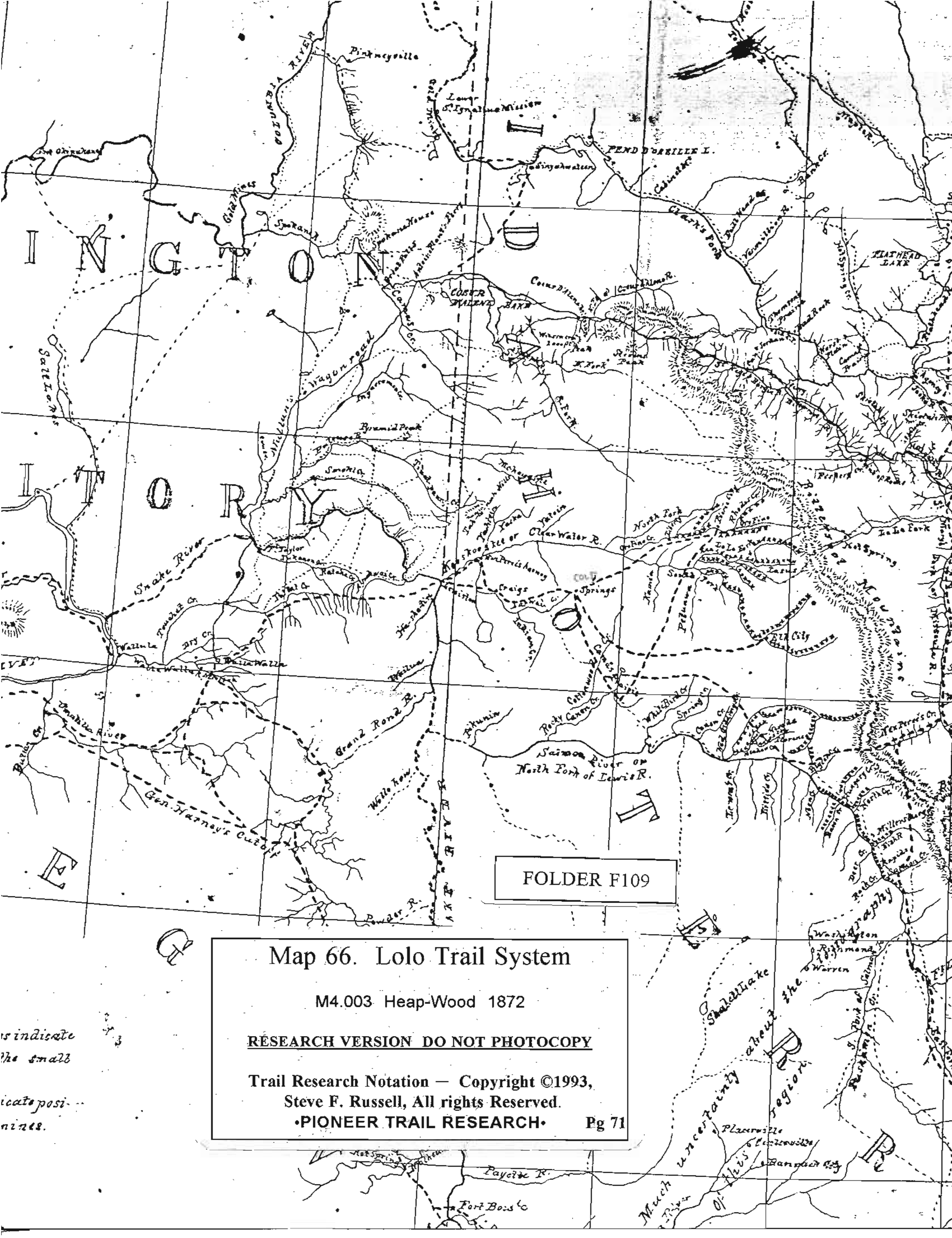
FOLDER F109



Map 66. Lolo Trail System

M4.003 Heap-Wood 1872

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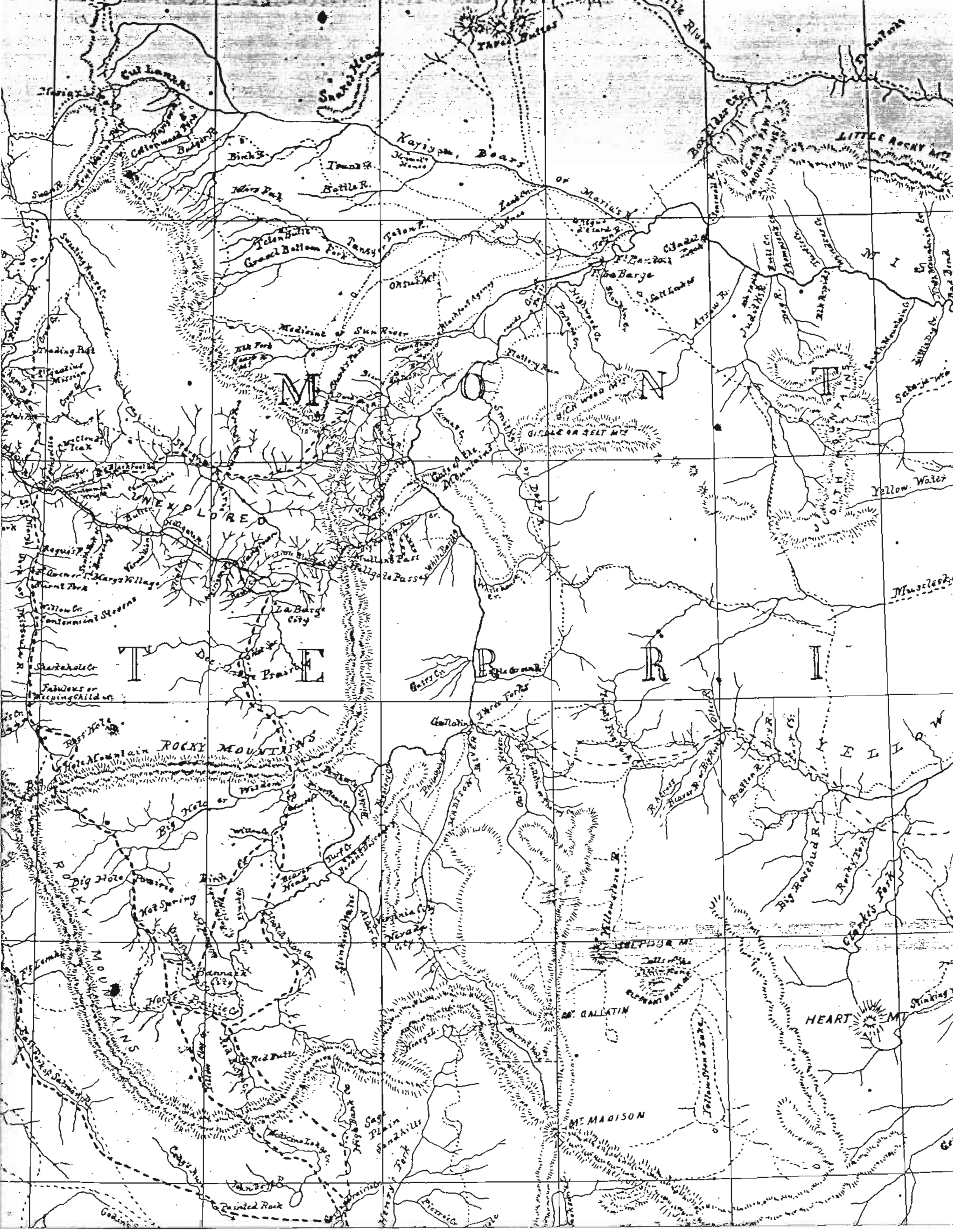M O N T
T E R R I
Y E L L O W
Cut Lance R.
Snake Head
Three Buttes
Milk River
Box Elder Cr.
BEAR'S PAW MOUNTAINS
LITTLE ROCKY MTS
Cottonwood
Badger R.
Birch R.
Teton R.
Battle R.
Kayiyou, Bears or Maria's R.
Dry Fork
Swan R.
Teton Butte
Grand Bottom Fork
Tansy or Teton R.
Sweating House Cr.
Ohtset Mt.
Blackfoot Agency
Medicine or Sun River
Elk Fork
Hearts R.
Trading Post
St. Ignatius Mission
Crow Cr.
McClouds Peak
Ft. Benton
Ft. La Barge
Citadel Rock
Salt Lakes
Shonkin Cr.
Highwood Cr.
Arrow R.
Judith R.
Dog R.
Elk Rapids
Flattery Run
Smith's or Deep R.
HIGH WOOD MTS.
GIRDLE OR BELT MTS.
Gate of the Mountains
MOUNTAINS
Yellow Water
Musselshell
Whitehouse Cr.
South Mountain Cr.
Saba-je-wa
Big Blackfoot R.
UNEXPLORED
Bitter Root R.
St. Mary's Village
Burnt Fork
Willow Cr.
Cantonment Stevens
Sharkahole Cr.
Fabulous or Weeping Child Cr.
Mullan's Pass
Hellgate Passes
La Barge City
Deer Lodge Prairie
Boiling Spr.
Gallatin
Three Forks
Gates Cr.
Ross' Hole
Big Hole Mountain
ROCKY MOUNTAINS
Big Hole or Wisdom R.
Big Hole Prairie
Hot Spring
Birch Cr.
Beaver Head
Virginia City
Nevada City
Alder Cr.
Stinking Water
MADISON RIVER
Gallatin R.
Yellowstone R.
Otter R.
Dry R.
R. Across
Beaver R. or Big Rock R.
Big Rosebud R.
Rocky Fork
Clark's Fork
Stinking R.
HEART MT.
SULPHUR MT.
Falls of the Yellowstone
ELEPHANT BACK MT.
MT. GALLATIN
Yellow Stone Lake
MT. MADISON
ROCKY MOUNTAINS
Ft. Lemhi
East Fork of Salmon R.
Bannack City
Horse Prairie Cr.
Red Butte
Medicine Lodge Cr.
Sage Plain
Sand Hills
Henry's Fork
Pierre's Cr.
John Day's R.
Painted Rock
Godin's R.

Map 67. Lolo

Nez Perce War 1

RESEARCH VERSION

Trail Research Notation
Steve F. Russell, Al
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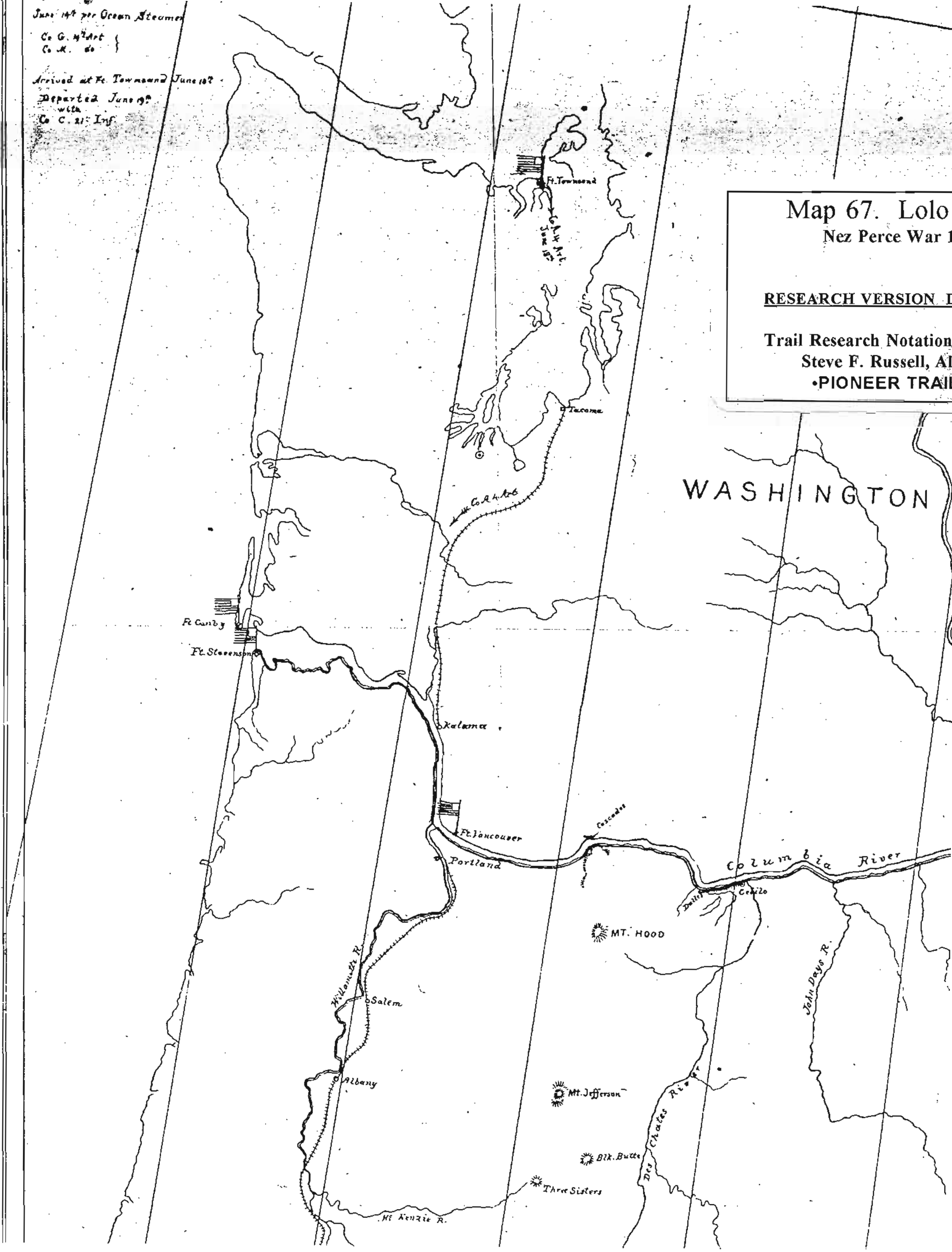

olo Trail System
Var 1977 (Howard)

ON DO NOT PHOTOCOPY

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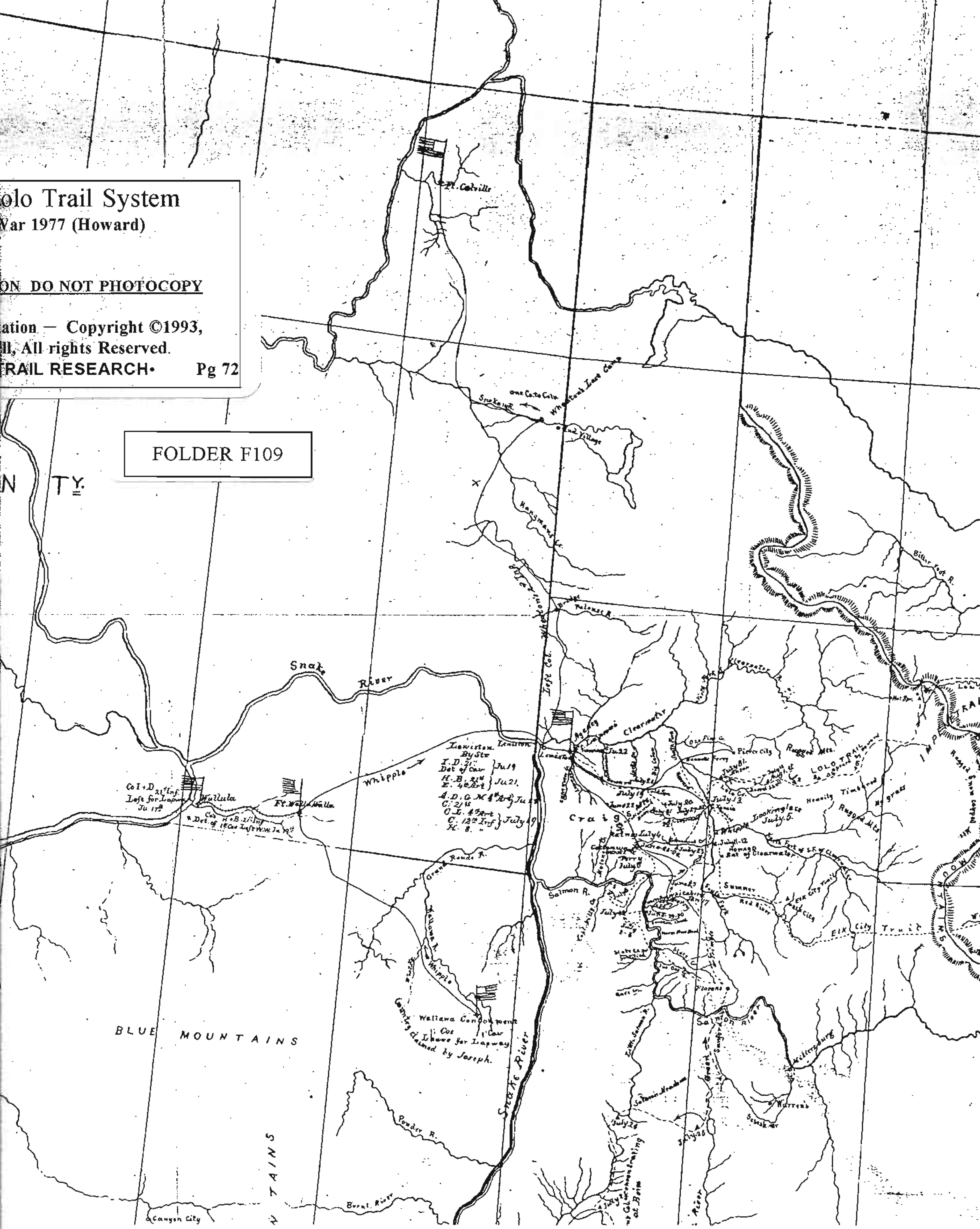
ll, All rights Reserved.
TRAIL RESEARCH• Pg 72

FOLDER F109



MAP SET - FOLDER F109

LOLO TRAIL SYSTEM

RESEARCH MASTERS

Map Sequence #6, Maps LTS 68-//, Pages 74-//.

✓Forest Visitor Maps. ✓Mud Creek Road. ✓French Mountain Road. ✓Weitas Creek Road Extension. ✓Frenchman Butte Road. ✓Pete King Road Extension.

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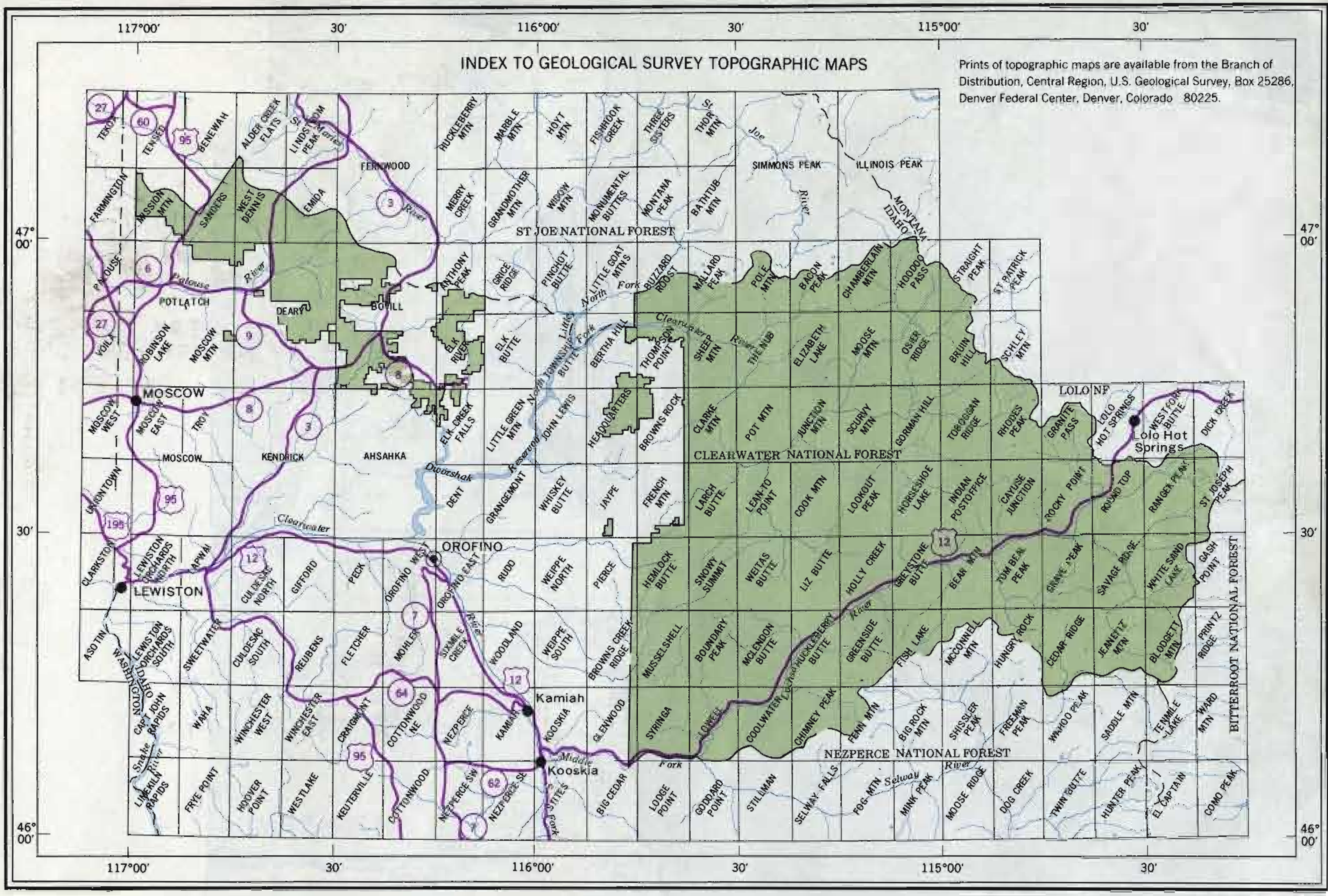
6

46°
30′

7



Map 68.
Forest V
RESEARCH VER
Trail Research N
Steve F. Ru
•PIONEEF

SEPT 1, 1986 REVISION OF TRAVEL RESTRICTIONS
EFFECTIVE UNTIL SEPT. 1, 1988 OR UNTIL
OTHERWISE EXTENDED OR RESCINDED

U.S. DEPARTMENT OF AGRICULTURE

8. Lolo Trail System
est Visitor 1986 (Legend)

VERSION DO NOT PHOTOCOPY

FOLDER F109

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R. MAX PETERSON, CHIEF

FOREST VISITORS MAP

CLEARWATER NATIONAL FOREST

AND

PALOUSE R.D. OF THE ST. JOE NATIONAL FOREST

IDAHO

BOISE AND PRINCIPAL MERIDIANS

1986

1" = 1 mile

Scale 1:126,720

1 ½ 0 1 2 3 4 5 Miles

1 ½ 0 1 2 3 4 5 Kilometers

LEGEND

⚑	Forest Supervisor's Headquarters
▲	District Ranger Station
▲	Forest Service Station
○	Located or Landmark Object, Airway Beacon, ect.
▲	U.S. Mineral or Location Monument
□	Boundary Monument
⚒	Mine, Quarry or Gravel Pit
⊕	Heliport
●	Gaging Station
≺	Cave or Cavern
▲	Forest Products
◡	Dam (Developed Water)
⊂	Corral
■	House, Cabin or other Building
▲	Schoolhouse
▲	Church

━━━	National Forest Boundary
━ ━	Adjacent National Forest Boundary
- - - -	State Boundary Line
— — —	County Boundary Line
— - —	Reservation Line
▨	Wilderness Area Boundary
▨	Special Area Boundary
⬡	Permanent Lookout Station
⬡ 268	Permanent Lookout Station with Aeronautical Number on Roof
⬡	Permanent Lookout Station and Horizontal Control Station
△	Horizontal Control Station
◆	Point of Interest
▼	Sportsman's Access
▲	Ski Area
▲	Recreation Site, Forest Service
△	Recreation Site, other than Forest Service

12	U.S. Highway
11	State Highway
460	Forest Route
━━━	Primary Highway
━━━	Secondary Highway
━ ━ ━	Primary Access Route - Normally Suitable for Automobile Travel - Travel with Caution
═══	Improved Light Duty
=====	Unimproved Dirt
- - 201 - -	Trail
- - - - - -	Historic or National Recreation Trail
┼┼┼	Railroad
-··-··-	Power Transmission Line
PIPELINE	Pipeline or Conduit
▬ ▬	Ranger District Boundary

🟩	Lands Administered by Clearwater National Forest
🟩	Adjacent National Forest Lands
🟨	Bureau of Land Management
🟦	State
🟧	U.S. Army Corps of Engineers
🟪	National Park
🟧	Indian Reservation (Ownership not shown)
🟥	Champion International
🟥	Diamond International Corporation
⬜	Potlatch Corporation
🟥	Burlington Northern, Inc
🟥	Bennett Tree Farms, Inc.
▨	Recreation or Wild River

TOWNSHIP AND SECTION LINE CLASSIFICATION

═══	Surveyed
====	Unsurveyed, protraction by BLM

4740 English Elevation
1445 Metric Elevation
Meters equal feet times 0.3048

FOREST SERVICE MAP
Base prepared in the Regional Office, USDA Forest Service, Missoula, Montana 59807
from USFS planimetric maps and U.S. Geological Survey topographic maps. Updated by Forest in 1986 and reformatted
by the USFS Geometronics Service Center, Salt Lake City, Utah 84119. Ownership guides for lands other than FS
provided by cooperators. The designation of land ownership other than FS does not imply the right of access.

Steve Russell
1989

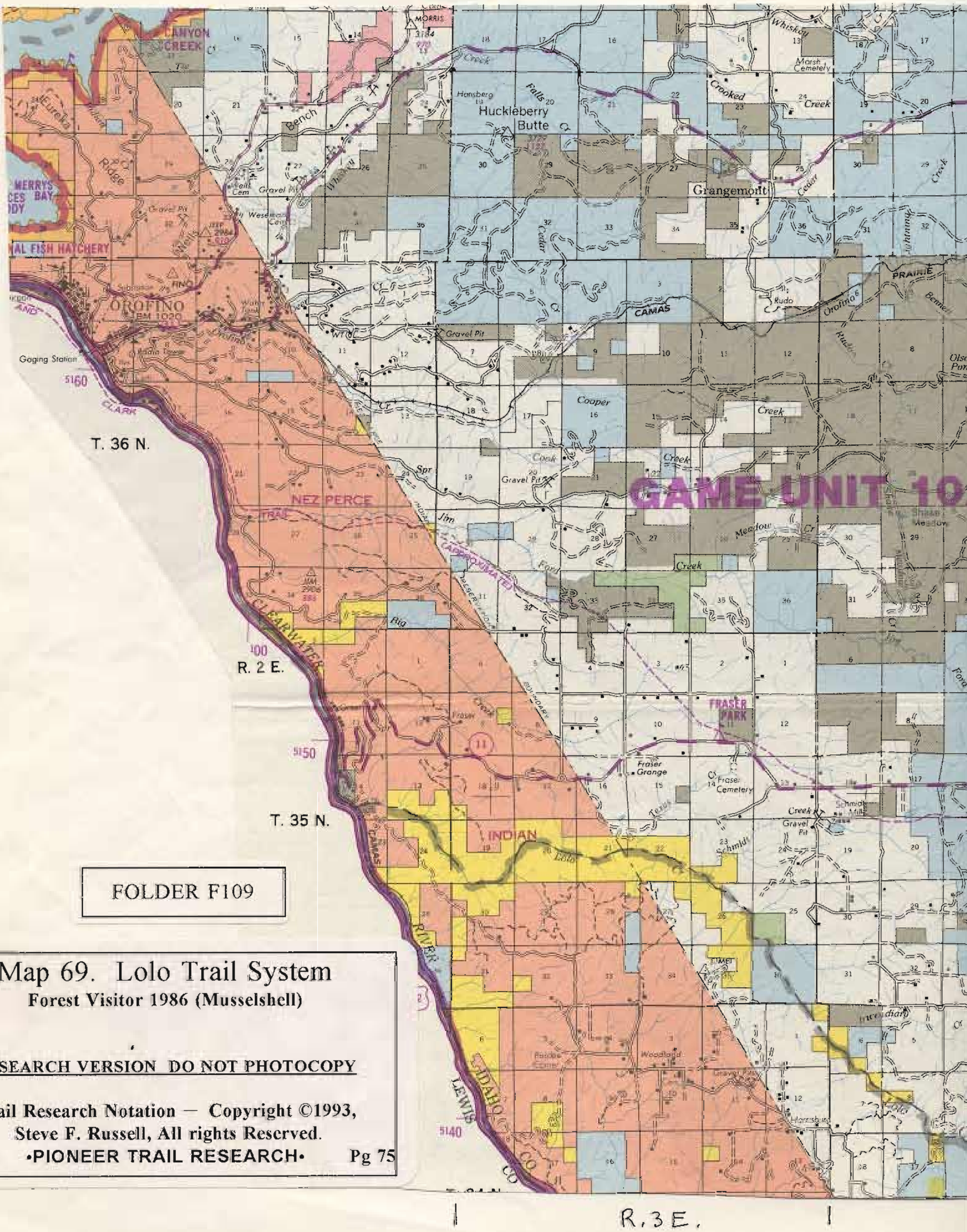
8

15′

9

A 117°00′ B C 45′ D

☆U.S. GOVERNMENT PRINTING OFFICE: 1988-595-145



FOLDER F109

Map 69. Lolo Trail System

Forest Visitor 1986 (Musselshell)

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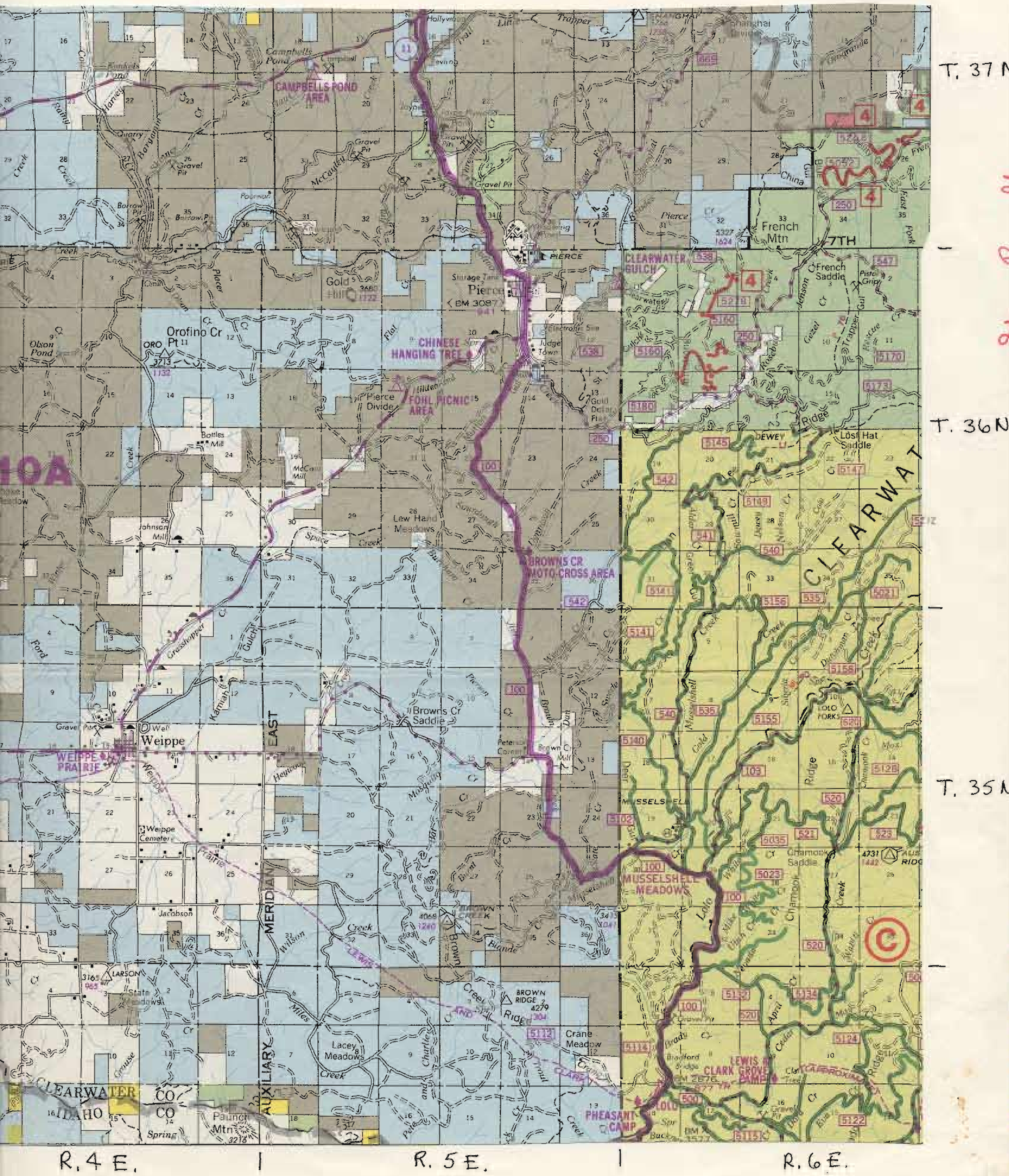
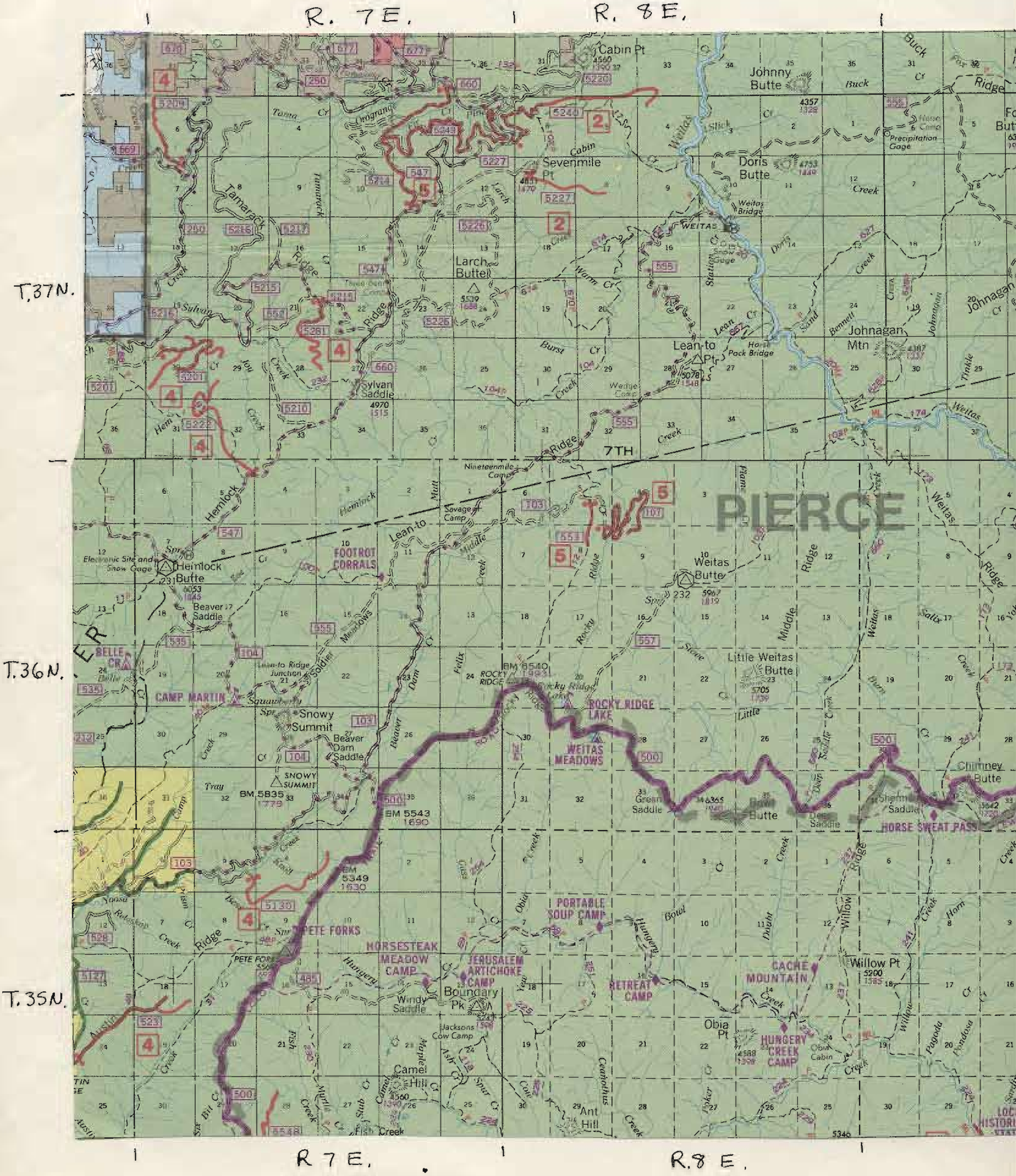
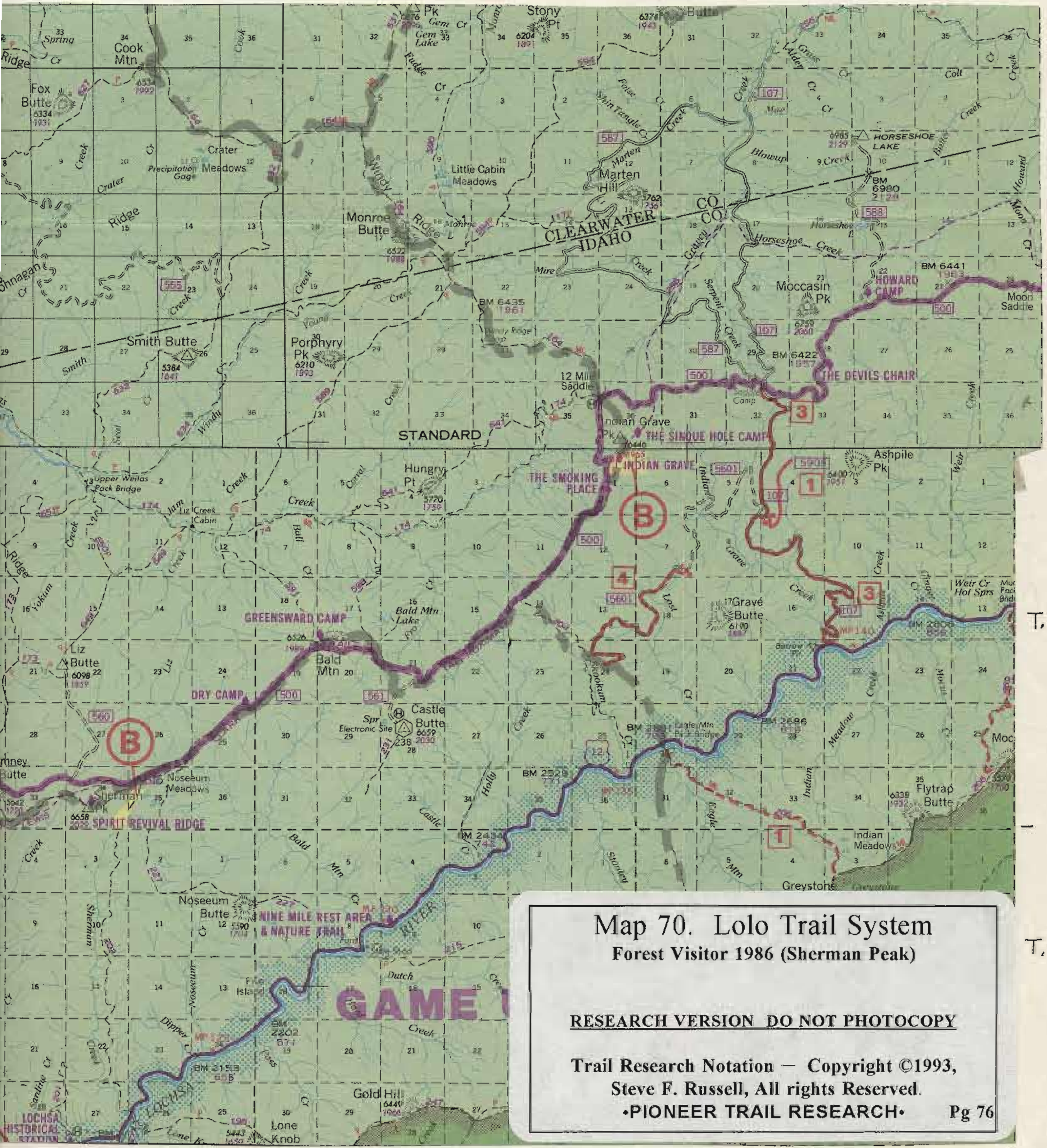
R.3E.


T. 37 N
T. 36 N
T. 35 N
R. 4 E.
R. 5 E.
R. 6 E.
Pierce
Weippe
WEIPPE PRAIRIE
CAMPBELLS POND AREA
Campbells Pond
CHINESE HANGING TREE
FOHL PICNIC AREA
Pierce Divide
BROWNS CR MOTO-CROSS AREA
Browns Cr Saddle
CLEARWATER GULCH
French Mtn
French Saddle
Lost Hat Saddle
Orofino Cr Pt
Gold Hill
Judge Town
Gold Dollar Flat
Bottles Mill
McCall Mill
Johnson Mill
Lew Hand Meadows
Peterson Corner
Brown Cr Mill
MUSSELSHELL MEADOWS
MUSSELSHELL
Chamook Saddle
LOLO FORKS
LEWIS & CLARK GROVE CAMP
PHEASANT CAMP
Bradford Bridge
BROWN RIDGE
BROWN CREEK
Crane Meadow
Lacey Meadows
State Meadows
Jacobson
LARSON
Weippe Cemetery
Paunch Mtn
CLEARWATER CO
IDAHO CO
EAST MERIDIAN
AUXILIARY
CLEARWAT
10A
7TH
100
250
500


R. 7E.
R. 8E.
T.37N.
T.36N.
T.35N.
R 7 E.
R.8 E.
PIERCE
Cabin Pt
Johnny Butte
Buck Cr
Ridge
Sevenmile Pt
Doris Butte
Weitas Bridge
WEITAS
Tamarack Ridge
Larch Butte
Sylvan Cr
Sylvan Saddle
Lean-to Pt
Horse Pack Bridge
Johnagan Mtn
Burst Cr
Wedge Camp
Hemlock
Nineteenmile Camp
7TH
Savage Camp
Lean-to
FOOTROT CORRALS
Electronic Site and Snow Gage
Hemlock Butte
Beaver Saddle
Weitas Butte
BELLE CR
Lean-to Ridge Junction
Soldier Meadows
Rocky Ridge
ROCKY RIDGE LAKE
WEITAS MEADOWS
Little Weitas Butte
CAMP MARTIN
Snowy Summit
Beaver Dam Saddle
SNOWY SUMMIT
Green Saddle
Chimney Butte
HORSE SWEAT PASS
PORTABLE SOUP CAMP
PETE FORKS
HORSESTEAK MEADOW CAMP
JERUSALEM ARTICHOKE CAMP
Windy Saddle
Boundary Pk
Jacksons Cow Camp
RETREAT CAMP
CACHE MOUNTAIN
Willow Pt
Obia Pt
HUNGERY CREEK CAMP
Camel Hill
Ant Hill
Fish Creek
LOCHSA HISTORICAL STATION

FOLDER F109

R. 9 E. R. 10 E. R. 11 E.



T. 3
T. 36
T. 35

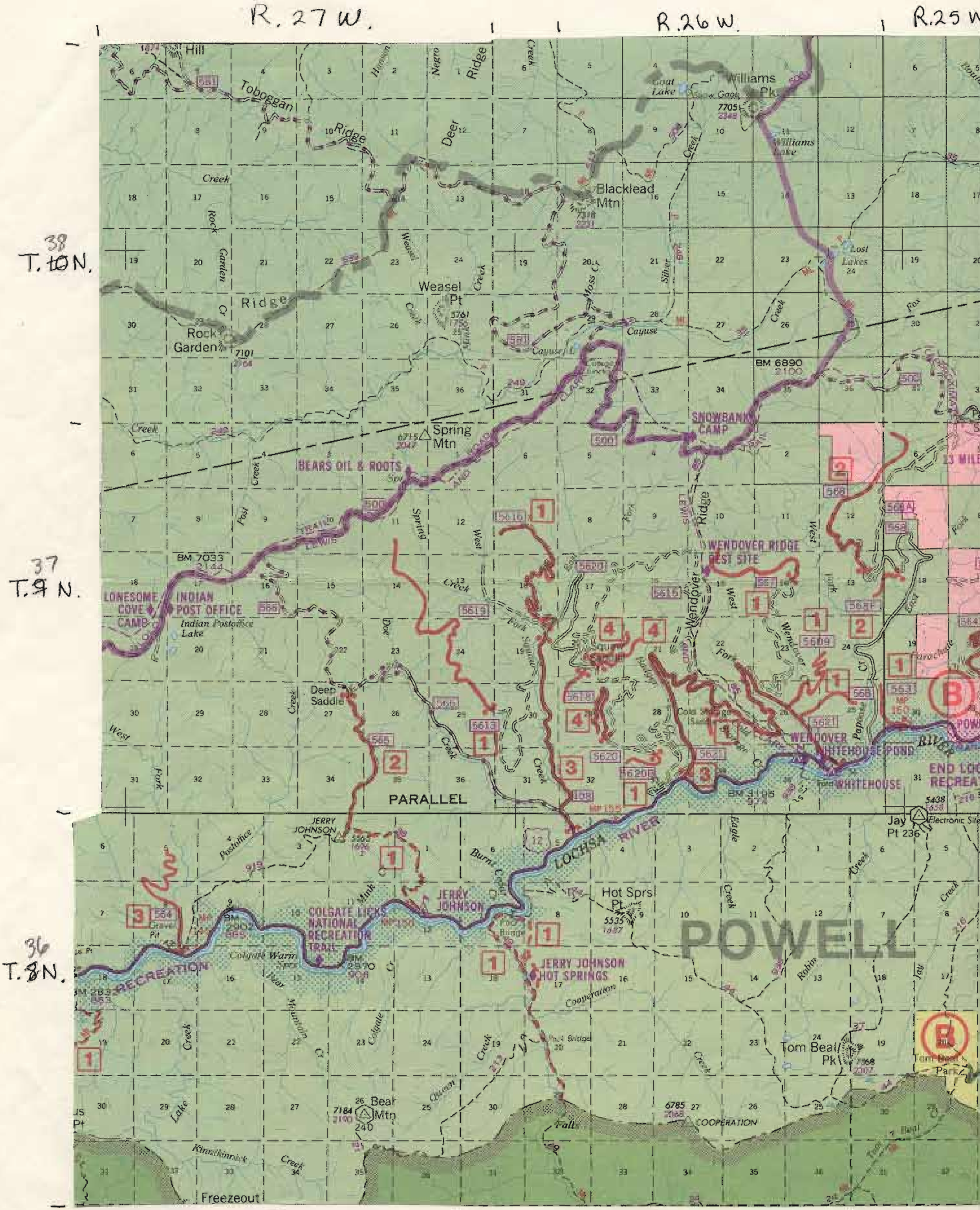
R. 9 E. R. 10 E. R. 11 E.

Map 70. Lolo Trail System

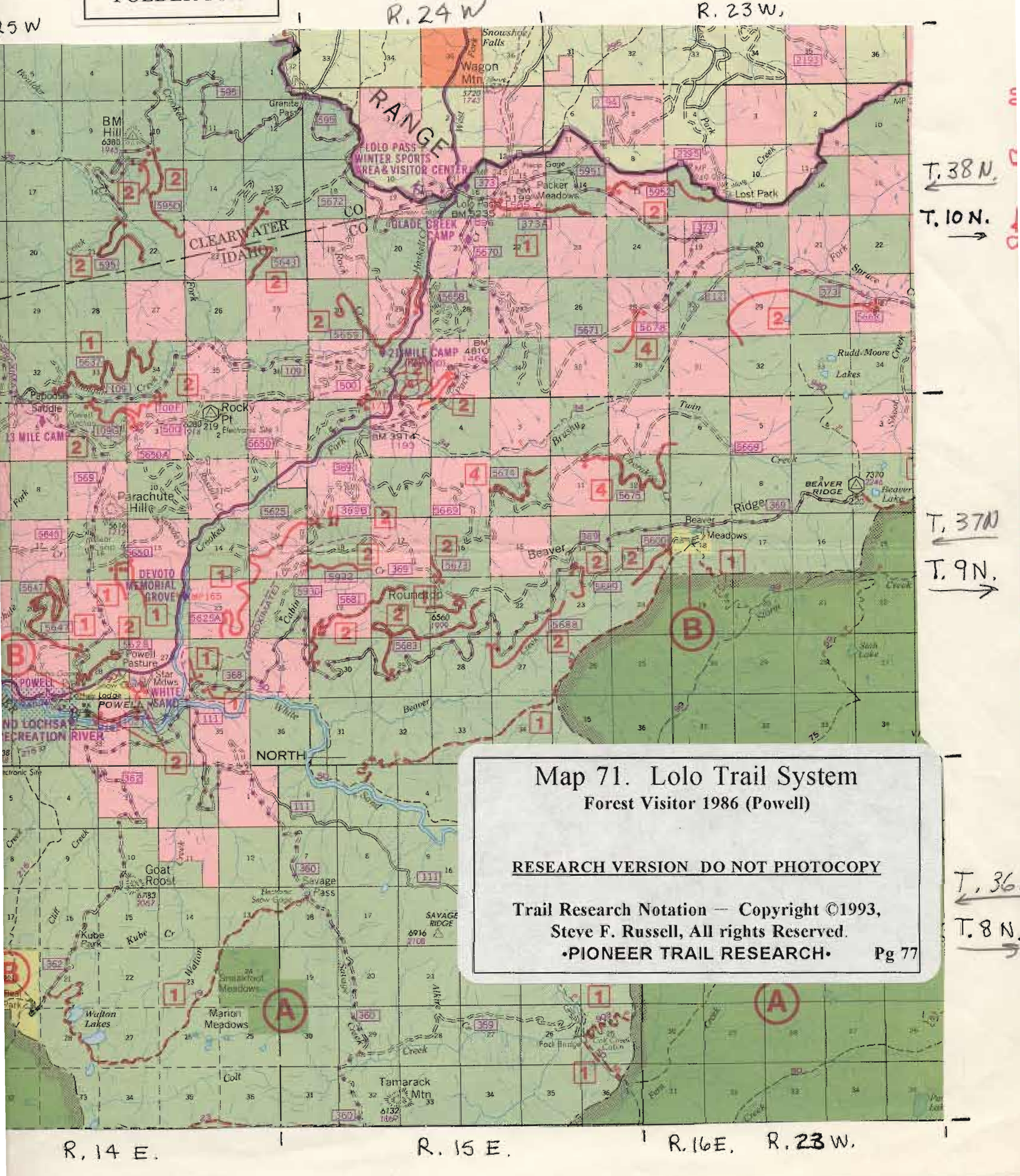
Forest Visitor 1986 (Sherman Peak)

RESEARCH VERSION DO NOT PHOTOCOPY

•PIONEER TRAIL RESEARCH•


R. 27 W.
R. 26 W.
R. 25 W
38
T. 10 N.
37
T. 9 N.
36
T. 8 N.
R. 12 E
R. 13 E.
Toboggan Ridge
Deer Ridge
Negro Ridge
Williams Pk
Goat Lake
Williams Lake
Blacklead Mtn
Weasel Pt
Rock Garden
Lost Lakes
Cayuse
Spring Mtn
BEARS OIL & ROOTS
LEWIS AND CLARK TRAIL
SNOWBANK CAMP
BM 6890
BM 7033
LONESOME COVE CAMP
INDIAN POST OFFICE
Indian Postoffice Lake
WENDOVER RIDGE REST SITE
Wendover Ridge
Deep Saddle
PARALLEL
JERRY JOHNSON
WENDOVER
WHITEHOUSE POND
WHITEHOUSE
END LOCHSA RECREATION
LOCHSA RIVER
COLGATE LICKS NATIONAL RECREATION TRAIL
Colgate Warm Sprs
JERRY JOHNSON HOT SPRINGS
Hot Sprs Pt
POWELL
Jay Pt
Electronic Site
Tom Beal Pk
Tom Beal Park
Bear Mtn
Freezeout
COOPERATION
Falls
RECREATION
12

FOLDER F109



Map 71. Lolo Trail System

Forest Visitor 1986 (Powell)

RESEARCH VERSION DO NOT PHOTOCOPY

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•PIONEER TRAIL RESEARCH•

46°
30′

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R. MAX PETERSON, CHIEF

LOLO NATIONAL FOREST

MONTANA

PRINCIPAL AND BOISE MERIDIANS

1984

Scale 1:126,720

1 ½ 0 1 2 3 4 5 Miles

1 ½ 0 1 2 3 4 5 Kilometers

LEGEND

90	Interstate
12	U.S. Highway
200	State Highway
345	County Route
5811	Forest Route
━━━	Primary Highway
━━━	Secondary Highway
─ ─ ─	Primary Access Route-Normally Suitable for Automobile Travel-Travel with Caution
═══	Improved Road
= = = =	Primitive Road
= = ┼ = =	Road or Trail with Restrictions-Inquire at Local Forest Service Station
— — 227 — —	Trail (See Classification Note)
– – – –	Historic or National Recreation Trail
┼──┼──	Railroad
- - - • - - - •	Power Transmission Line
— — — —	Pipeline or Conduit
⬡	Permanent Lookout Station
⬡ 239	Permanent Lookout Station with Aeronautical Number on Roof
⬡	Permanent Lookout Station and Horizontal Control Station
△	Horizontal Control Station

⚑	Forest Supervisor's Headquarters
▲	District Ranger Station
▲	Forest Service Station
△	Recreation Site, Forest Service
△	Recreation Site, other than Forest Service
◆	Point of Interest
▼	Sportsman's Access
⛷	Ski Area
▽	Trailhead, Livestock
⚒	Mine, Quarry or Gravel Pit
○	Located or Landmark Object
▲	U.S. Mineral or Location Monument
●	Gaging Station
≺	Cave or Cavern
▲	Sawmill (Forest Products)
■	House, Cabin or other Building
⚑	Schoolhouse
┼	Church

━━━	National Forest Boundary
— — — —	Administrative Forest Boundary
—— ——	Adjacent National Forest Boundary
— - - —	State Boundary
— - —	County Boundary
▨	Game Management Area Boundary
▨	Wilderness Boundary
— · —	Special Area Boundary
🟩	Lands Administered by Lolo National Forest
🟩	Adjacent National Forest Lands
🟨	Bureau of Land Management Land
⬛	National Fish and Wildlife Service Land
🟦	State Land
🟧	Champion International Land
🟥	Burlington Northern, Inc. Land
▨	**Recreation or Wild River**
🟧	Indian Reservation (Ownership not shown)

TOWNSHIP AND SECTION LINE CLASSIFICATION

═══	Surveyed, location reliable
— — —	Unsurveyed, protraction by BLM

Trail (T) Travelway limited to use by hikers, stock, and vehicles less than 40 inches in width. Some trails are closed to stock or motorized use.

Way (W) Marked route or primitive foot trail.

Note: Not all trails are maintained annually. Users should be prepared for the inherent risks of wildland travel. Restrictions or closures on motorized and stock travel are in effect on some areas, roads, and trails, refer to the Forest Travel Plan map.

5492 English Elevation
1674 Metric Elevation
Meters equal feet times 0.3048

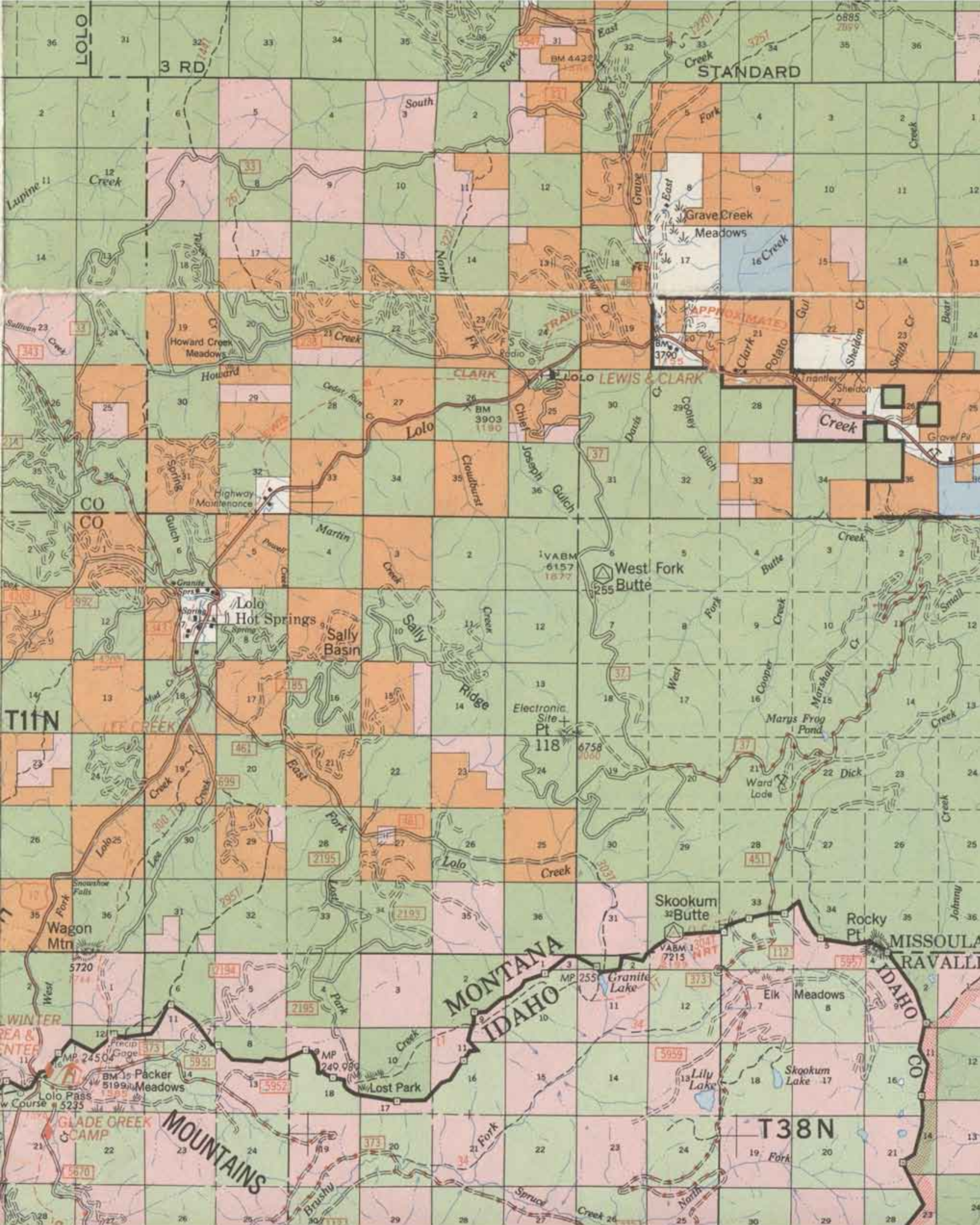
FOREST SERVICE MAP
Base material prepared in Regional Office, USDA Forest Service, Missoula, Montana 59807 from U.S. Forest Service planimetric maps and U.S. Geological Survey topographic maps. Updated in 1982 by USDA Forest Service, Geometronics Service Center, Salt Lake City, Utah 84119. Ownership guides for other than U.S. Forest Service are supplied by cooperators. The designation of other lands does not imply the right of access

14

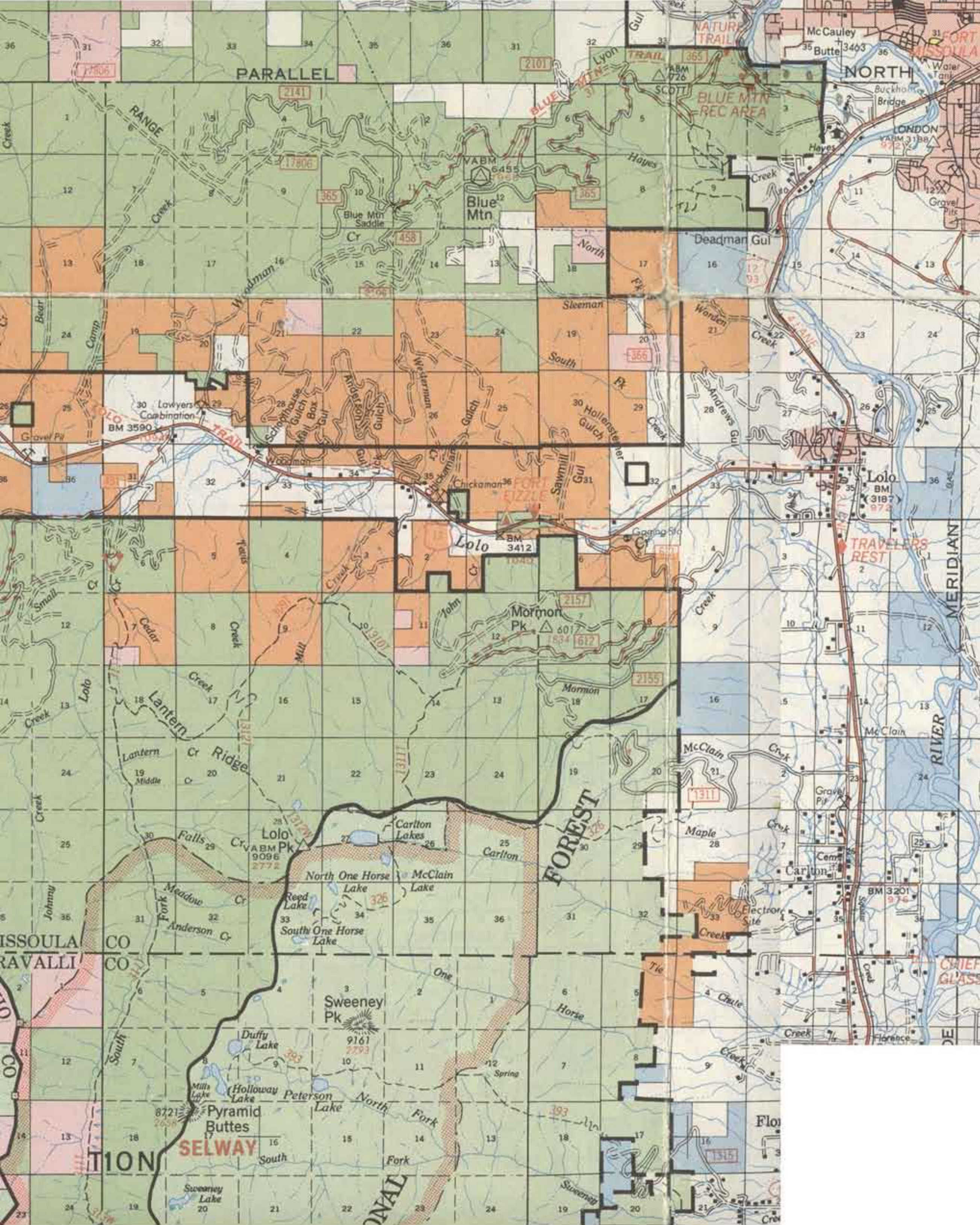
15

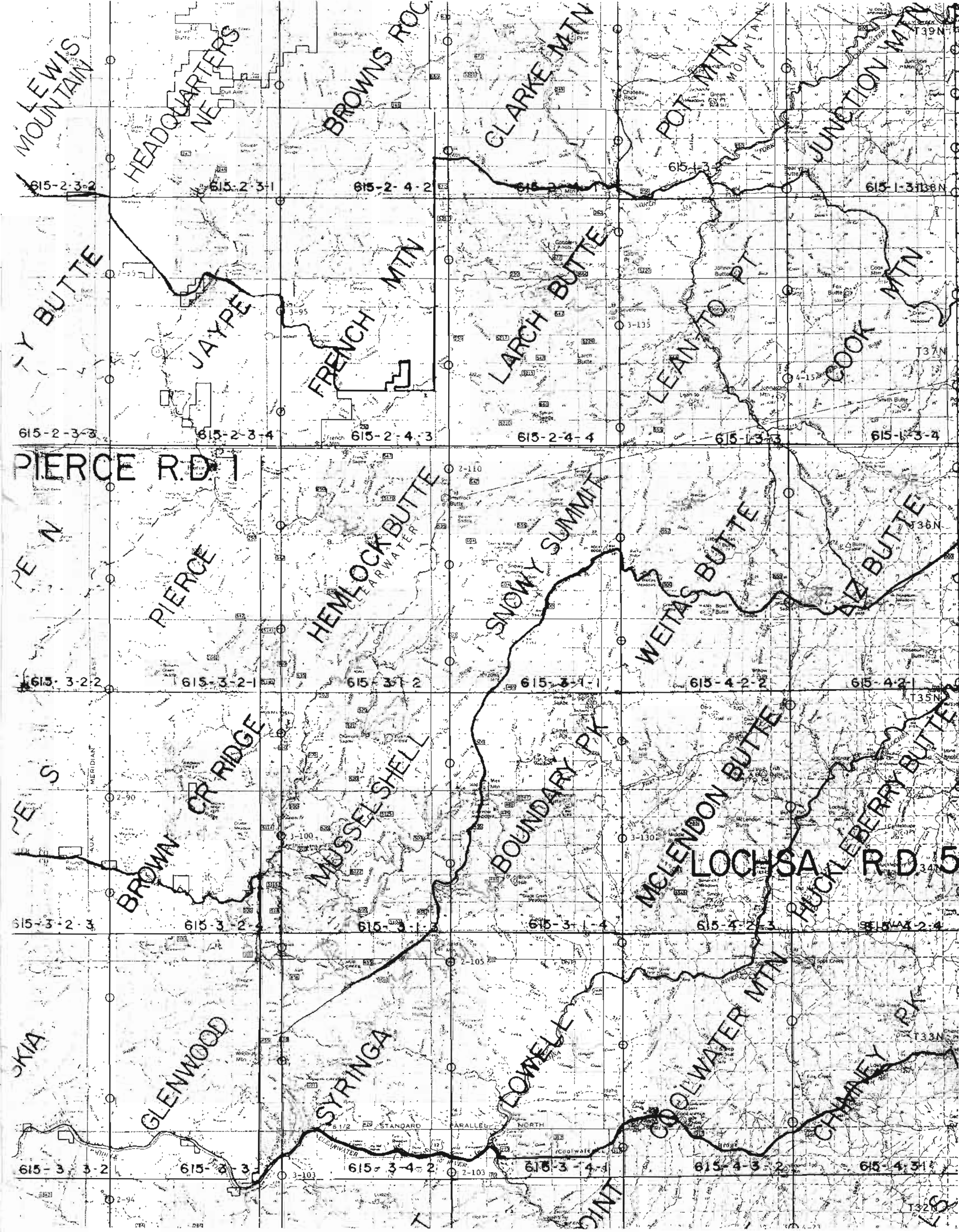
30′

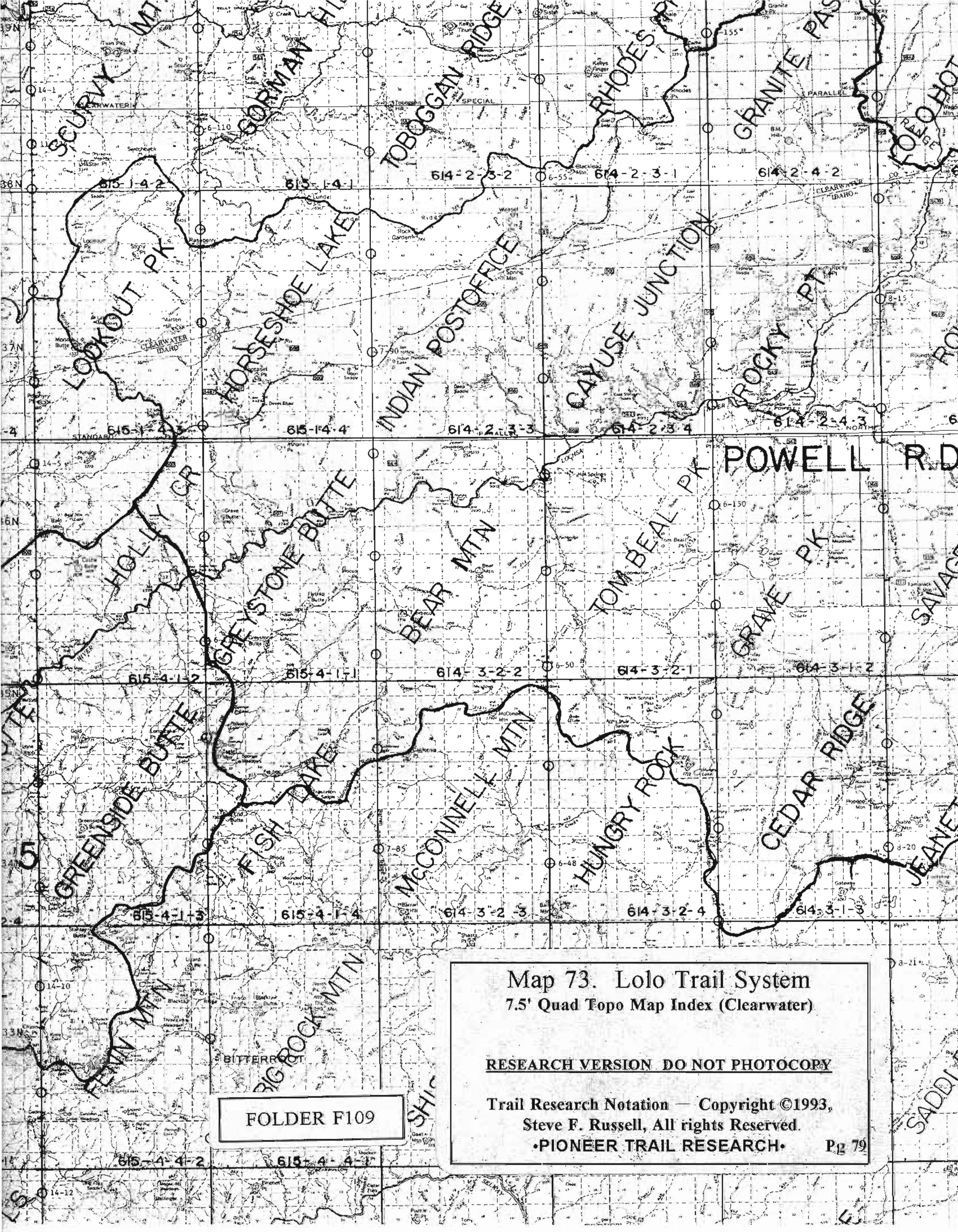
G H 45′ J



LOLO
3 RD
STANDARD
East Fork
East Creek
BM 4422
6885
South
Lupine
Creek
Grave Creek
Grave Creek Meadows
East
16 Creek
North Fk
Hungry Cr
TRAIL
APPROXIMATE
Gul Cr
Sheldon
Smith Cr
Bear
Clark Cr
Potato
Sullivan Creek
Howard Creek Meadows
Howard
Creek
F S Radio
LOLO
LEWIS & CLARK
CLARK
BM 3790
Cedar Run Cr
Lolo
BM 3903
Chief Joseph Gulch
Davis
Cooley Gulch
Thantler
Sheldon
Creek
Gravel Pit
Spring
Highway Maintenance
Cloudburst
CO
Gulch
Martin
Powell
Creek
VABM 6157
West Fork Butte
255
Butte
Creek
Granite Sprs
Lolo Hot Springs
Spring
Sally Basin
Sally Ridge
West Fork
Cooper
Marshall Cr
Small
Mud Cr
T11N
LEE CREEK
Electronic Site
Pt 118
6758
Marys Frog Pond
Dick Creek
Ward Lode
East Fork
Lolo Creek
Lee Creek
Lolo Fork
Snowshoe Falls
Wagon Mtn
5720
Skookum Butte
VABM 7215
Rocky Pt
MISSOULA
RAVALLI
Johnny
MONTANA
IDAHO
MP 255
Granite Lake
Elk Meadows
IDAHO CO
WINTER AREA & CENTER
Precip Gage
MP 245.04
BM 5199
Packer Meadows
Lolo Pass 5235
Course
MP 249.980
Lost Park
Park
Creek
Lily Lake
Skookum Lake
T38N
GLADE CREEK CAMP
MOUNTAINS
Fork
Brushy
Spruce Creek
North
Fork
West


PARALLEL
RANGE
McCauley Butte 3463
FORT MISSOULA
NORTH
Water Tank
Buckhouse Bridge
LONDON
VABM 3188
Hayes
Hayes Creek
Lyon Gul
BLUE MTN TRAIL
NATURE TRAIL
ABM 4726
SCOTT
BLUE MTN REC AREA
VABM 6455
Blue Mtn
Blue Mtn Saddle
Cr
North
Deadman Gul
Gravel Pits
Woodman
Creek
Sleeman
Worden Creek
South Fk
Bear
Camp
Lawyers
Combination
BM 3590
LOLO TRAIL
Gravel Pit
Schoolhouse Gulch
Mail Box Gul
Anderson Gulch
Lick Gul
Westerman Gulch
Chickaman Gulch
Hollenstener Gulch
Sawmill Gul
Andrews Gul
Woodman
Chickaman
FORT FIZZLE
BM 3412
Lolo Cr
Gaging Sta
Lolo
BM 3187
TRAVELERS REST
MERIDIAN
Tevis
Small Cr
Cedar Cr
Creek
Mill Creek
John Cr
Mormon Pk 6017
Mormon
Creek
Lolo Creek
Lantern Creek
Lantern Ridge
Lantern Cr
Middle Cr
McClain
McClain Creek
RIVER
Gravel Pit
Johnny Creek
Falls Cr
Lolo Pk
VABM 9096
Carlton Lakes
Carlton
FOREST
Maple
Creek
Carlton
Cem
BM 3201
North One Horse Lake
McClain Lake
Reed Lake
Meadow Cr
Fork
Anderson Cr
South One Horse Lake
Electronic Site
Creek
MISSOULA CO
RAVALLI CO
One Horse
Tie
Chute
CHIEF GLASS
Sweeney Pk 9161
Duffy Lake
Mills Lake
Holloway Lake
Peterson Lake
North Fork
Spring
Creek
Creek
Florence
Pyramid Buttes 8721
SELWAY
South Fork
South
Sweeney Lake
Sweeney
Flor
TION
ONAL


LEWIS MOUNTAIN
HEADQUARTERS NE
BROWNS ROC
CLARKE MTN
POT MTN
JUNCTION MTN
615-2-3-2
615-2-3-1
615-2-4-2
615-2-4-1
615-1-3-4
615-1-3
T39N
T38N
Y BUTTE
JAYPE
FRENCH MTN
LARCH BUTTE
LEAN-TO PT
COOK MTN
3-95
3-135
4-15
T37N
615-2-3-3
615-2-3-4
615-2-4-3
615-2-4-4
615-1-3-3
615-1-3-4
PIERCE R.D. 1
2-110
PE N
PIERCE
HEMLOCK BUTTE
CLEARWATER
SNOWY SUMMIT
WEITAS BUTTE
LIZ BUTTE
T36N
615-3-2-2
615-3-2-1
615-3-1-2
615-3-1-1
615-4-2-2
615-4-2-1
T35N
PE S
MERIDIAN
2-90
BROWN CR RIDGE
3-100
MUSSELSHELL
BOUNDARY PK
3-130
McLENDON BUTTE
HUCKLEBERRY BUTTE
LOCHSA R.D. 5
T34N
615-3-2-3
615-3-2-4
615-3-1-3
615-3-1-4
615-4-2-3
615-4-2-4
2-105
SKIA
GLENWOOD
SYRINGA
LOWELL
COOLWATER MTN
CHIMNEY PK
T33N
STANDARD PARALLEL NORTH
CLEARWATER RIVER
615-3-3-2
615-3-3-1
615-3-4-2
615-3-4-1
615-4-3-2
615-4-3-1
3-103
2-103
2-94
T32N
POINT



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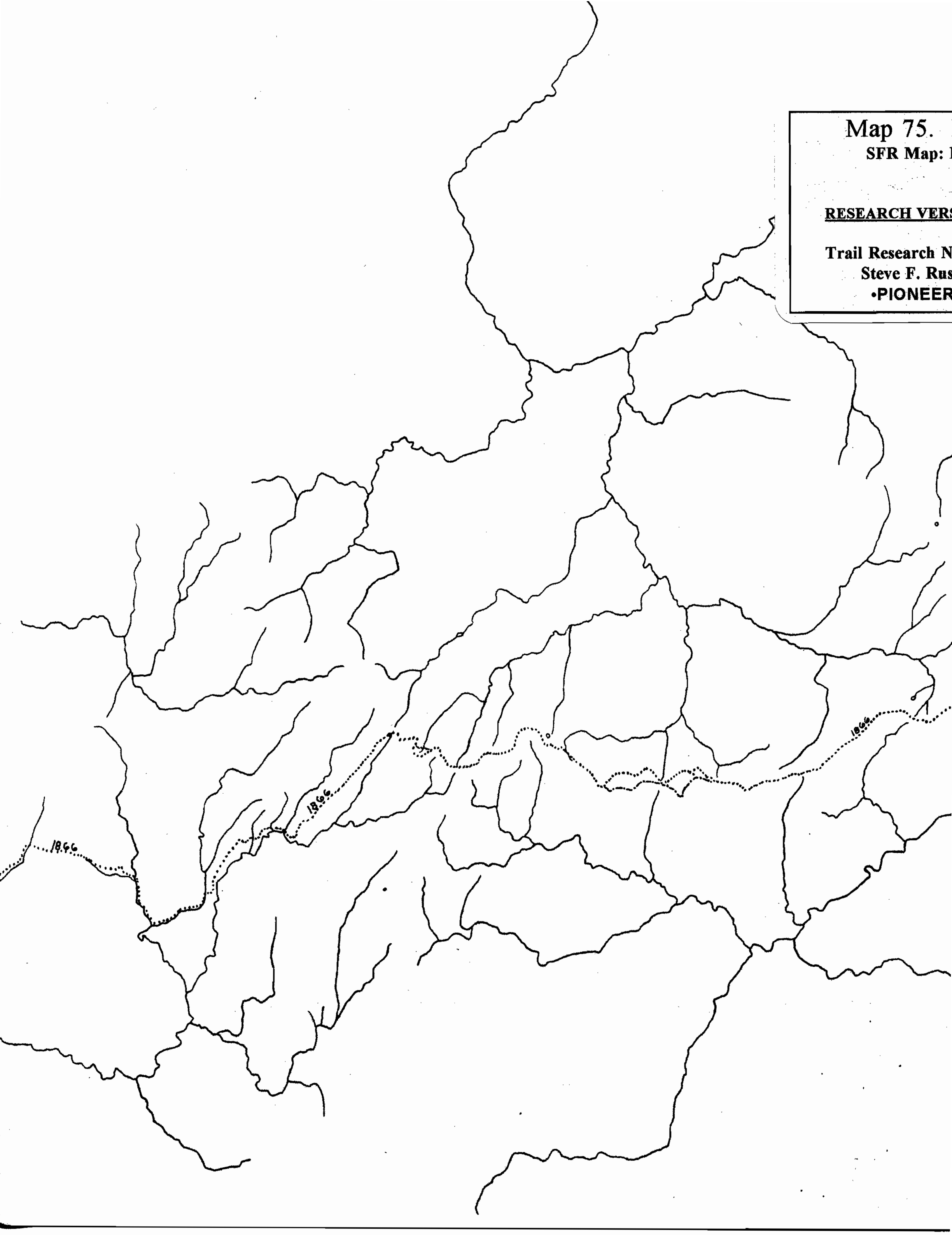
Map 73. Lolo Trail System

7.5' Quad Topo Map Index (Clearwater)

RESEARCH VERSION DO NOT PHOTOCOPY

•PIONEER TRAIL RESEARCH•



Map 75.
SFR Map: I

RESEARCH VERS

Trail Research N
Steve F. Rus
•PIONEER

5. Lolo Trail System

Map: Lolo Trail System 1866

VERSION DO NOT PHOTOCOPY

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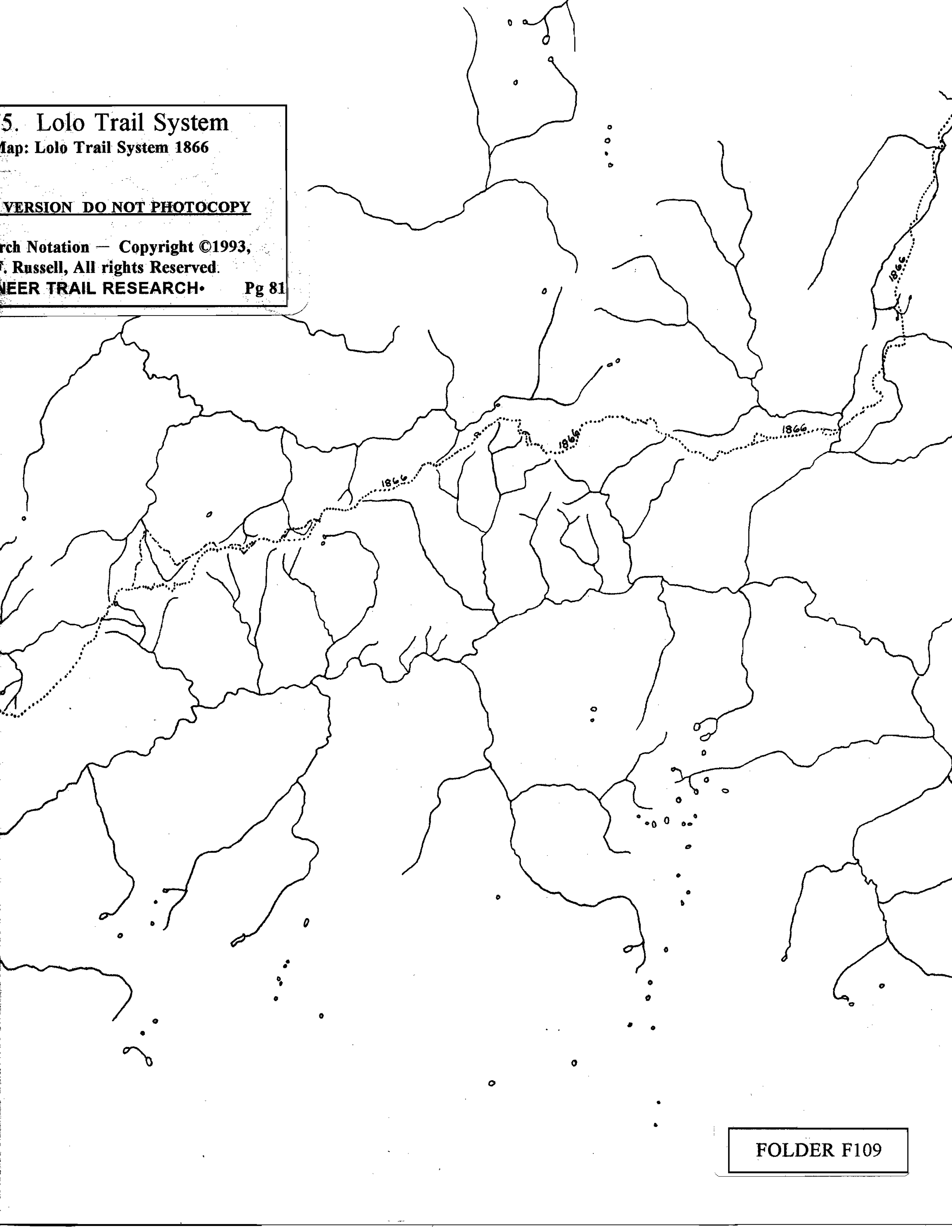
NEER TRAIL RESEARCH• Pg 81



FOLDER F109

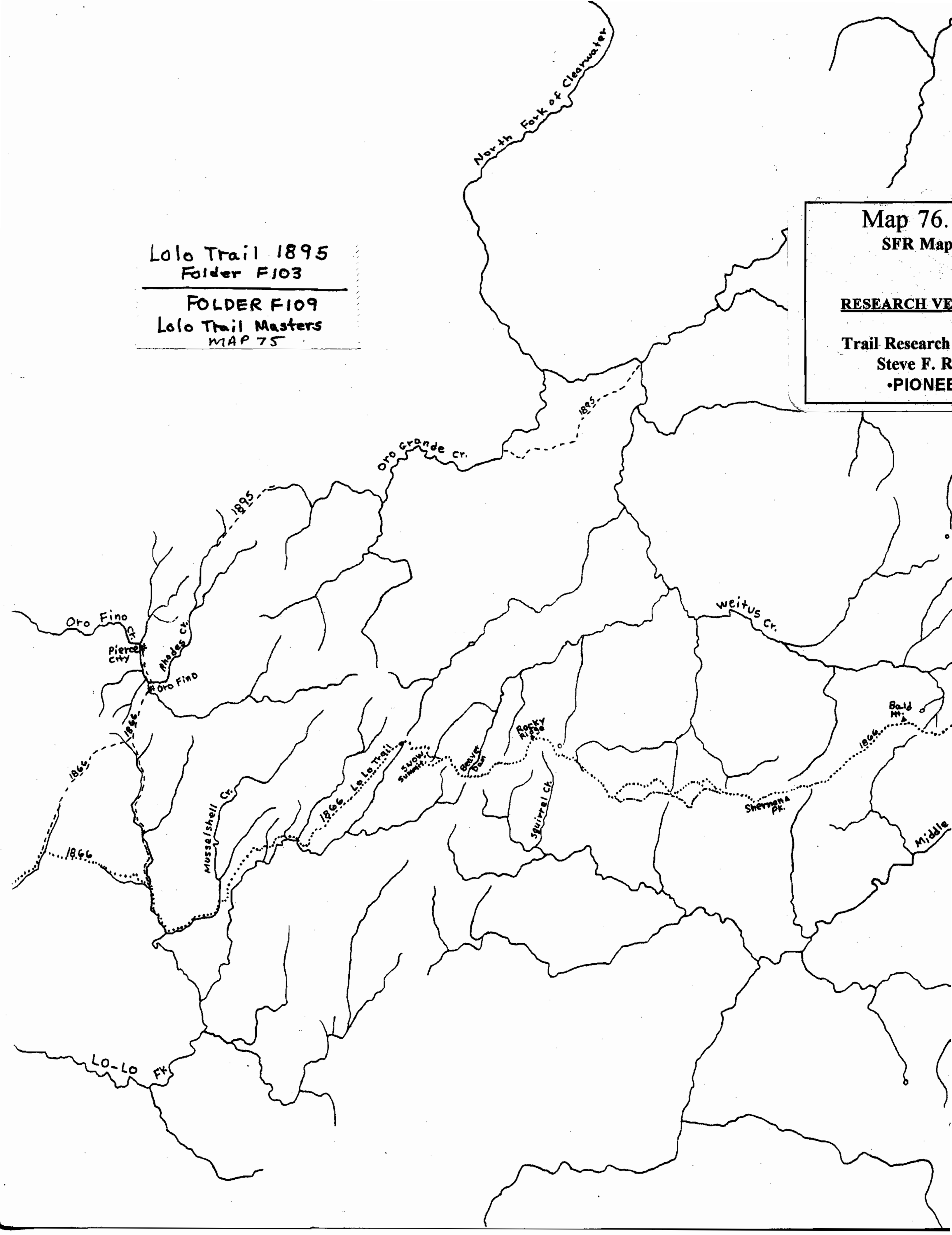
Lolo Trail 1895
Folder F103

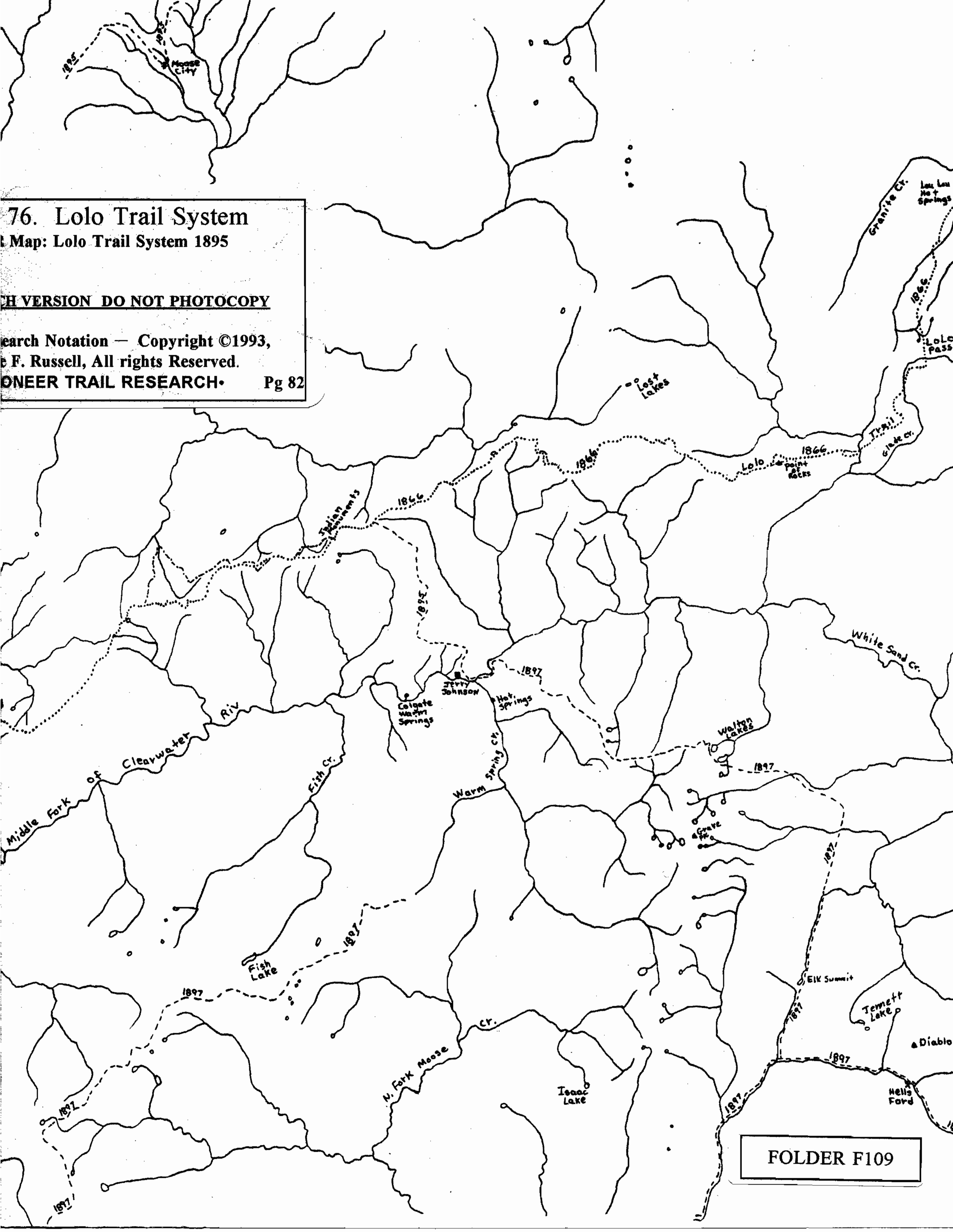
FOLDER F109
Lolo Trail Masters
MAP 75

Map 76.
SFR Map

RESEARCH VE

Trail Research
Steve F. R
•PIONEE





76. Lolo Trail System

Map: Lolo Trail System 1895

CH VERSION DO NOT PHOTOCOPY

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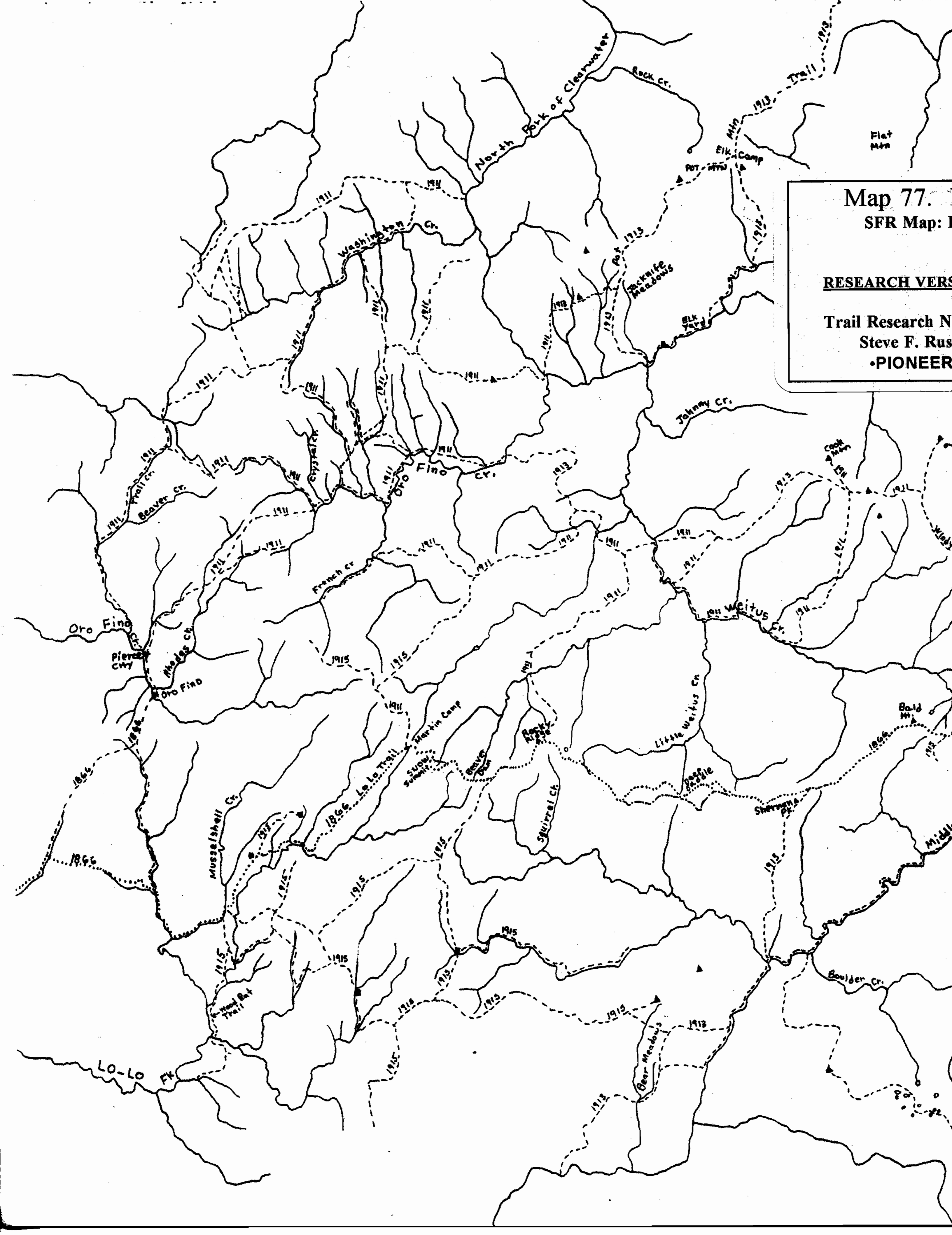
ONEER TRAIL RESEARCH• Pg 82

FOLDER F109



Map 77.
SFR Map: I

RESEARCH VERS

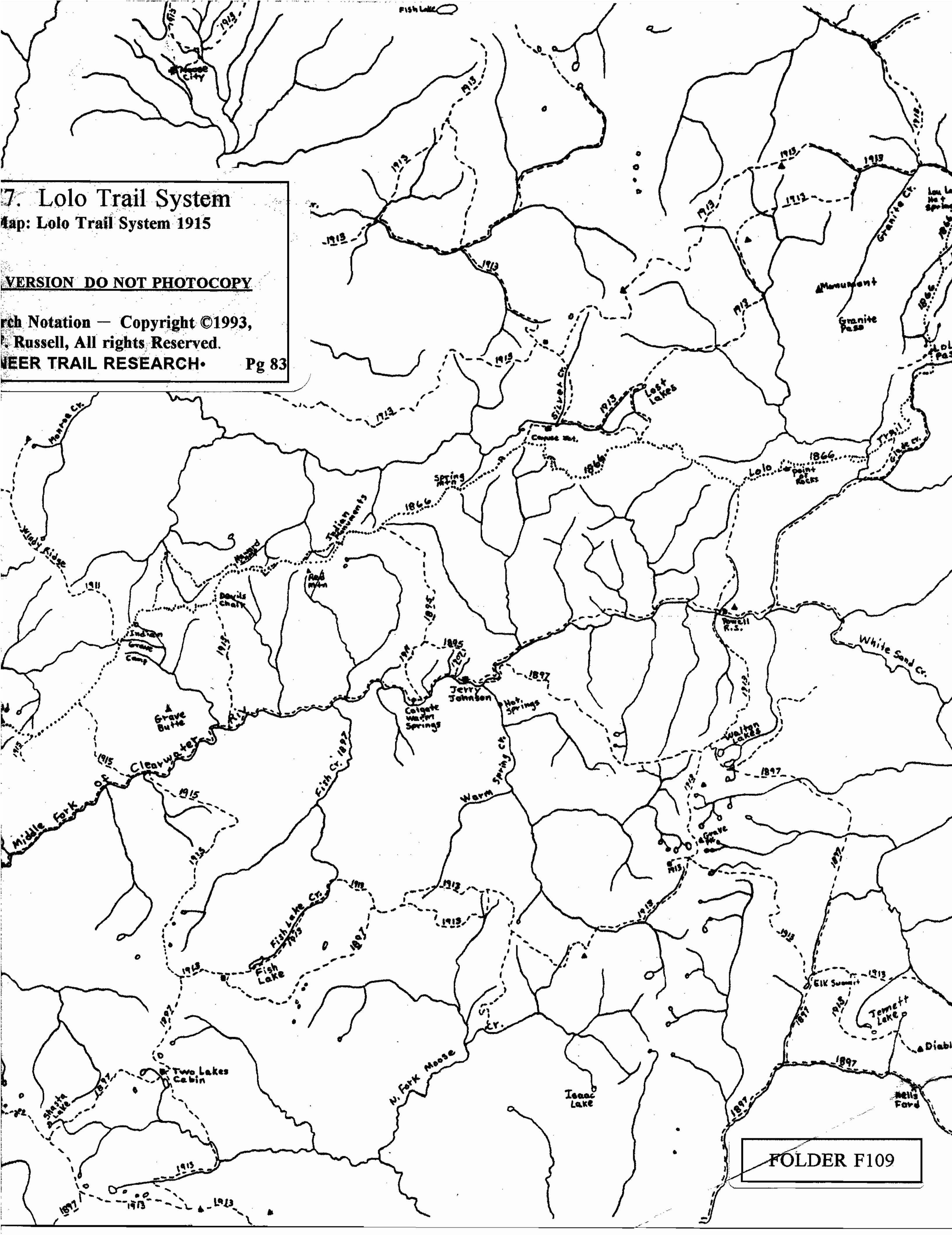
Trail Research N
Steve F. Rus
•PIONEER

7. Lolo Trail System

ap: Lolo Trail System 1915

VERSION DO NOT PHOTOCOPY

NEER TRAIL RESEARCH•



FOLDER F109

FOLDER F106
1930

NOT Finished

Lolo Trail System

3/31/92

Zoom to 75%

Lolo Trail System, ca1898-1930
Map by Steve F. Russell, Based on Historical Map Resources
1992

7000 feet
6000
5000
4000
3000
2000
1000
SEA LEVEL 0
Miles
G.B.N. 1898
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160 SEA LEVEL
OYIPE PRAIRIE (QUAMASH FLATS) (3228)
MUSSEL SHELL PRAIRIE (3397)
E. BRANCH MUSSLE SHELL
LOLO (COLLINS) CR.
FISH CREEK
THE NECK
(5919) MT. WIX
SQUIRREL MT. (MUSCOR MEN)
HUSTON CREEK
BUTTE CAMP
MT. JULIET
(6616) MT. ROMEO
PRAIRIE GULCH
MEADOW MT. (6568)
CASTLE ROCK
SNOWSHOE
LEANING TREE (6000)
LAKE TRAPAIN (5272)
MT. MARCY
(6561) MT. SIMPSON
KOOSKOOSKEE RIVER
GLADE CREEK
DIVIDE of the BITTER-RTS.
HOT SPRING
LOULOU CR.
BITTER ROOT RIVER
Dotted line - Supposed profile of Hungry Cr. route travelled by Lewis & Clark...
Dotted lines - Supposed profile L. & C. west bound.
Distances largely overestimated - Undulations of surface not noted
Hungry Cr.
5000
WATERSHED OF LO-LO CREEK (COLLINS)
DIVIDE BETWEEN NORTH FORK OF CLEARWATER (RIVER CHOPUNNISH)
FORK OF SOUTH FORK OF CLEARWATER (KOOSKOOSKEE)
and North Fork of South Fork
WATERSHED OF KOOSKOOSKEE RIVER
VALLEY OF LOULOU (TRAVELLERS-REST) CREEK
IDAHO
MONTANA
Creek from North
Large Creek from North
Sep. 11, 1805
June 30, 1806

PROFILE OF THE LOLO OR NORTH NEZ-[illegible] TRAIL OVER THE BITTER-ROOT MOUNTAINS

•ALL DISTANCES ESTIMA[illegible] FROM A TRAVEL ON HORSEBACK IN 1866.
ELEVATIONS FROM OBSERV[illegible]ROMETER, WHERE FIGURES ARE SHOWN IN BRACKETS, BY OLIVER MARCY,
ALL OTHER ELEVATIONS [illegible]EROID OBSERVATIONS BY G.B.NICHOLSON.

CAMPING PLACES OF LEWIS AND CLARK INDICATED THUS,

Map 51. Lolo Trail System
Nicholson Profile Map A
G. B. NICHOLSON 1898

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FOLDER F109

(A)

Map 52. Lolo Trail System
Nicholson Profile Map B
G. B. NICHOLSON 1898

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FOLDER F109

(B)

Map 53. Lolo Trail System
Nicholson Profile Map C
G. B. NICHOLSON 1898

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FOLDER F109

(C)

SFR NOTES: 1. above mileage is long by a factor of 1.22 to 1.53

M3.015 NICHOLSON-ELEVATION-PROFILE 1898
TUBE-6

This map was prepared by George B. Nicholson in 1898, documenting his survey of 1866.

This copy was obtained in August 1990 from the Archaeologists files of the Clearwater National Forest

Note: this is the Northern Perces trail and not Bird-Truax Trail

APPENDIX

1. Research Methodology

2. Final Years of a Trail Researcher

3. My Writing Style

4. Inference in Historical Trail Research

5. About the Author

Historical Trails Research Report No. 0001
Clark's Maps for the Lewis and Clark Expeditionover the Lolo Trails NHL

Research Methodology for Historical Trails Discovery and Documentation

This section briefly addresses the methodology I have developed for finding historic trails and wagon roads. Trying to describe a process that has been developed using science, inference, and intuition is difficult because it involves so many variables and perturbations. It is similar to a basketball coach writing a monograph on the process of coaching during a game. Some people question if it is even possible to develop such a methodology, but finding actual old worn trail tread is the proof that it works. In this monograph, the word ‘trail’ means the erosion trace of an historic trail or historic wagon road.

Trails and roads are transportation routes that people use to get from one point to another in the most practical way possible. The main criteria for trail location choices have always been directionality, water, food, shelter, safety, ease of travel, and availability. These are the same criteria that have been used by all travelers for uncounted millennia.

Major Criteria for Trail Location

Directionality	A traveler is interested in getting from “point-A” to “point-B” in the most effective way possible. Thus, trails have a directionality characteristic. This means the trail connects the points in the shortest practical distance, given obstacles and availability constraints. The trail may meander but it tries to keep close to a direct path.
Water	Essential for all life, a trail must pass by water sources frequently enough to serve the needs of people and livestock. Most of the time, a water source every 3-15 miles is acceptable although we know distances of 40-70 miles are a difficult reality for some trails..
Food	Also essential for life, the area traversed by a trail must provide plant and animal food sources adequate for livestock and people.
Shelter	Shelter from adverse weather is highly desirable but often scarce. Caves, cliffs, and tree-branch shelters can serve the purpose –when available. People often transported their shelter with them as they travel. For aboriginal people and early fir trappers, it was often animal hides. In modern times, it is the nylon tent and/or warm rain gear.
Safety	For aboriginal people, this was a key element in the location of trails. Safety from enemies, dangerous animals, cliffs, steep hillsides, etc, were paramount.
Ease of Travel	If a trail is well located for ease of travel, energy requirements, and food requirements; ‘wear and tear’ and stress and trauma are reduced. It is a plus if a trail can be located on reasonable slopes/ grades.
Availability	A good trail is available during most months of the year. The location must take into account snow, rain, tree dead-fall, and flooding streams and rivers.

Trail, Road, and Highway Construction, Induced Erosion Characteristics

A knowledge of the historical progression of trail-use helps greatly with the discovery of true trails. For example, a trail route such as the Ice Age Trail from Canada to the southern United States was traveled thousands of years ago by people on foot and with whatever domesticated animals (most often dogs) they had available. These migration routes can be estimated by campsites but any trail erosion trace has long disappeared due to erosion from rain, snow melt, fire runoff, etc.

In the Pacific Northwest, trails were worn by human foot traffic and dogs before the arrival of the horse, which was about 1730. Lewis & Clark followed well-worn Indian trails for most of their journey across the mountains (Lost Trail Pass in the exception). As horse herds increased their number, pack horses replaced the dog travois, especially in brushy, mountainous, timbered areas. The increased use of pack horses also increased the depth and braid of existing trails. It is the horse trail erosion tread that we find in the mountains today.

Wagon roads replaced horse trails in some locations but, for the most part, the wagon roads were separate because (with notable exceptions) they required a route that was less steep; and gentle hillside slopes. Constructed wagon roads such as the Lander Road of the Oregon-California Trail and the Lewiston & Virginia City Wagon Road (Bird Truax Trail) in north-central Idaho, were surveyed to an acceptable wagon road grade.

The era of mechanized road construction and western agriculture brought about the destruction of the fundamental nature of the historic horse trail. Single-lane dirt roads covered over some of the trails and were followed by paved roads. Travelers of modern paved roads are usually unaware that they are driving over what was once a major Indian Trail, less than two centuries ago. One interesting use for old trails was to turn them into ditches for agriculture and mining. Sometimes they were located in the right place and had a slope that accommodated use as a water ditch.

The construction characteristics and erosion characteristics of a trail give powerful clues as to its origin. Constructed trails and wagon roads can be quite different from trails pioneered by aboriginal people and emigrants. Erosion trails by horses and horse travois are significantly different from erosion trails caused by wagons.

Trail Use Identification

One of the most difficult tasks in historic trail discovery and documentation is to determine its origin, era (dates) of use, and type of use. A trail can come into use by many different means. Science and art must both be used to properly identify them. Here are some trail types.
-ANIMALS: Horses, Cattle, Sheep, Buffalo, Elk, Moose, Deer, etc.
-HUMAN FOOT TRAFFIC: hiking, camping, hunting, etc.
-CONSTRUCTED TRAILS: Silver and Gold Mining, hunting, National Forests, National Parks, Recreation, Federal and State Government.

Indian Trails (Horse Trails) For the most part, these trails travel as directly as possible between two points, even when they have to go through difficult terrain. They tend to stay on ridges and other high points and almost never travel in the brush and windfall bottoms of rivers and creeks. They also tend, when possible, to be located in the most sunny areas of travel. This makes the trail usable earlier in the spring and later in the fall. For example, the trail will be located near the crown of the ridge but on the sunniest edge of it. These main trails do not ‘dip and dive’ off a ridge to access each water source or meadow of horse feed. The main trail stays on the ridge and travelers access these essential places with a side trail. This is the most energy efficient way of travel and energy efficiency was, and still is, very important. They will avoid locations that may expose them to enemy ambush. One significant feature of Indian trails in steep areas is the nature of the trail switchbacks. The trail is serpentine steeply up the hill and the switchbacks are only 3-5 time the length of a horse (30-50 feet). When a trail has long, shallow switchbacks, it is not an Indian trail.

Cattle Trails Cattle create grazing trails and patterns on hillsides where there may be a horse trail. This can create a difficult separation problem unless a vantage point can be gained where the weaving cattle pattern can be distinguished from the ‘straight-line’ horse trail. Cattle also produce a radial pattern of trails around a water source or salt block. Historic horse trails do not. Cattle were often driven on historic trails and create erosion patterns that are difficult to distinguish from horse trails. In the mountains, cattle to do a lot of single-file traveling, just as saddle horses do. I employ a variety of methods to eliminate cattle trails. Heavy cattle grazing over decades can obliterate a major historic trail.

Sheep Trails A stock driveway used by sheep can be 20 or more feet wide and a very well beaten path. It often looks more like a road than a trail. It does not have the deep erosion patterns created by horses and cattle. Historic trails can be rapidly destroyed by sheep because they graze the plants so close to the ground that significant erosion is created.

National Forest Trails These trails were originally designed for horse and foot traffic but now may have mountain bike, motorcycle, or ATV traffic. Many of these trails were converted Indian trails with reroutes and longer switchbacks constructed where needed. Over the last 100 years, the historic nature of many original Indian trails has been lost. Forest trails were constructed, or modified, to create a more shallow grade and reduce erosion. Maps of these trails exist back to at least 1911 which helps separate them from Indian trails. Forest trails have a ‘constructed’ look about them that is different from pioneered trails.

National Park Trails These trails, for the most part, are constructed for tourist hiking and are of recent vintage. My research work up to this time has not included areas of National Parks.

Mining Trails Gold and silver miners originally used the Indian trails for explorations and travel, so some historic trails have been greatly impacted by mining activity. This is especially true for the Southern Nez Perces Trail in north-central Idaho. As mines were established and travel route changes were needed, the miners would abandon some sections of the Indian trail and construct their own trails. They had different needs and objectives. Because miners and Indians traveled the same way with horses and mules, distinguishing the two can be a challenge. In these areas, it is helpful to have old journals and knowledge of various mine locations to separate them out.

Hunting Trails In high-traffic hunting areas, hunters often develop trails from camping areas to water sources and meadows. These are often horse trails and, depending on their age, may be difficult to distinguish from historical trails. Fortunately, they can be distinguished by the way they link camping areas with known water sources and hunting meadows. On the Lolo Trail corridor in Idaho, they are usually less than five miles in length and most are less than two miles in length. They also tend to connect with National Forest trails so a good trail map is essential to separate the two. Additionally, maintained National Forest trails are brushed out to specific standards which can distinguish them from hunting trails, which tend to have brushing problems.

Livestock Driveways These were large trails used to drive cattle and sheep from winter pastures to summer pastures and from pastures to railheads. They were characterized by wide beaten paths and the directionality associated with pastures and railheads.

Wagon Roads In frangible soil types, old wagon roads tend to have a central swale created by the horse hooves and often, there are no discernable wagon wheel ruts. Where very rocky soil and hard surfaces exist, the wheel ruts are easily discernable.

Historical Documentation of Trails

Historical documentation of western trails is often available in the form of government maps, fur trader maps, explorer and pioneer journals, and history books. Original sources are essential for the best research quality. Second, or third-hand information can be degraded in quality caused by editing, bias, gross error and general lack of accurate knowledge. Even high-quality journals like those produced by Lewis & Clark and the Corps of Discovery can be interpreted in different ways and subject to editorial changes. However, the maps produced by William Clark are truly remarkable for the time and very helpful.

I rely mostly on original explorer journals and their maps as well as the Government Land Office Plat Surveys. Of course, both have occasional errors but their first-hand accounts usually produce good information to locate the erosion traces.

Historical Trails Research Report No. 0001

Clark's Maps for the Lewis and Clark Expeditionover the Lolo Trails NHL

Original Research Independence

The hallmark of my research has been to use only original documents dating, as near as possible, to the original dates of use of a trail or wagon road. This avoids the bias of using previous research. This is especially true for derivative books. After I apply my research methods and have determined trail and road locations as accurately as possible, I will then compare previous research results with my own. Most of the time they do not influence my results but, occasionally, I discover new information or an error in my research which I correct.

Anecdotal information and published oral histories have frequently proven to be inaccurate to the point where I place little confidence in them. In nearly all cases, the information has been passed down over a 100+ year span between the original source and today's generation.

Trail Dating and Route Evolution

Whenever reporting on trail research, it is essential to assign a correct date as to the location of the trail – at that time. The location of some portions of a trail will usually evolve over time and the reader and future researchers need to know the date that applies to whatever trail documentation is being provided. It is ideal if, when creating a map, each branch of the trail can be labeled with an applicable date. This evolution was never more abundantly clear than in the evolution of the various California and Oregon immigrant trails. There are literally hundreds of both major and minor branches in that trail system.

Ground Truthing

Hiking and finding the erosion trace of an old trail, and documenting it with a precision GPS, is the best way to insure high-quality research on an historic trail. Satellite, aerial, and ground photos can be very helpful and may produce good results in some cases, but they are no substitute for ground truthing. Various types of old maps can be used for approximation but accuracy is poor by modern standards. The original plat surveys by the Government Land Office (GLO), now called the Bureau of Land Management (BLM), offer good accuracy, but only on section line intersections with trails. The GLO maps can be quite inaccurate within section interiors, because of the "artistic liberty" taken by the map creators. It is best to get the information directly from the hand-written survey notes.

Experience, Intuition, and Dumb Luck

There is no amount of written information that is an adequate substitute for experience, inference, and intuition, when it comes to finding old trails. Trail location is so dependent on use, topography, vegetation, water, and other factors that there are unique aspects to each trail. Much trial and error is involved until this experience is gained. Last, but not least, is the element of 'dumb luck.' It happens when you are hiking along and literally stumble into the erosion trace of an old trail where you never expected it to be.

Revision and Additional Information

I will try to revise this document as new experiences point to new directions in research. I hope this information will be valuable to later generations of trail researchers.

Steve F. Russell
Historic Trails Research
Ames, Iowa
April 4, 2014

Final Years of a Trail Researcher

I am beginning to realize that I'm in the final years of my life, and definitely in my final years as a "trail pounder." Those trail slopes seem to have gotten much steeper in the past ten years! Many of the hikes I had planned for the future, will not be realized. However, 35 years of solo camping and hiking have given me many wonderful memories, and exciting adventures that I will cherish.

Those "steep slopes" also apply to my writing and research report production. It is hard for me to accept that there is still much to do that I will be unable to complete.

With my final years starting to loom large, I've decided to produce as many reports on my trail research as time and energy permit. I apologize in advance for some incomplete results, or lack of thoroughness, or less than perfect prose, that will be a natural part of this final effort. I hope future generations will continue on and expand my research.

My Writing Style

The goals of my writing style are to present the essence of the history, location, campsites, and landmarks for historical trails. I write in a "conversational" style, with clear and understandable prose, that is succinct, covering only the essence of the trail.

I do not consider it important to spend the time needed to follow all the rules of writing and sentence structure. I am not trying to write in "Cambridge prose."

Inference in Historical Trail Research

Inference is a very important concept in all types of research from theoretical physics, to medicine, to historic trails. The skill of the researcher in understanding inference, properly applying it, and acknowledging its use, is of paramount importance. A researcher can never claim that the conclusions reached using inference are "absolute truth," and yet, this often happens in many fields of research.

“Evidence” > “Logic & Reasoning” > “Conclusions”

Conclusions reached by Inference are not Absolute Truth

The dictionary definition of inference is:
-a conclusion reached on the basis of evidence and reasoning.
-synonyms are: deduction, conclusion, reasoning, conjecture, speculation, a guess, presumption, assumption, supposition, reckoning, extrapolation.

Another dictionary definition for statistical inference is: "the theory, methods, and practice of forming judgments about the parameters of a population and the reliability of statistical relationships, typically on the basis of random sampling." The key term in all research inference is "**forming judgements**." It is the process of forming judgements that sometimes goes far astray in reporting research results. It is not uncommon for researchers to “create” unsubstantiated evidence (a.k.a., assumptions) to complete the “forming judgements” part of their work and their conclusions can be very misleading. It is incumbent on the researcher to avoid this behavior or, at least, to make it very clear what assumptions were made.

These definitions, however, do not give a full understanding of how inference is often applied. In historical research, the “evidence” is often sparse, or at best, fragmented, and no amount of “logic and reasoning” can make up for inadequate evidence. This results in “conclusions” that are often shaky, at best, or really wrong, at the worst.

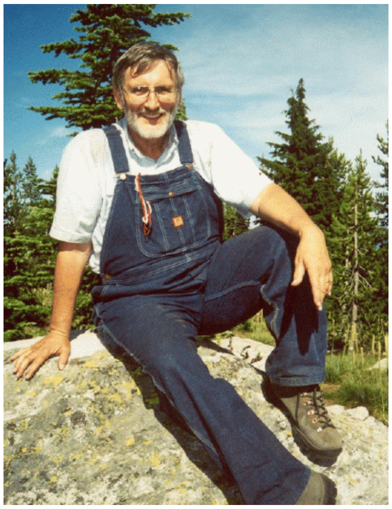
Despite its importance, some researchers do not seem to fully understand the roll of inference in their research. For example, in medicine, we hear the term "statistical inference" which means to present research where the results are reported in terms of probability and statistics, and the reader is often left to make their own conclusions. This is not really “inference.” The conclusions reached by “statistical inference” are one step removed from actual inference and, thus, produce conclusions that are even more speculative, and possibly misguided.

In historical trail research, inference plays a big roll in trying to understand the history of the trail as well as trying to accurately determine its location on a map and documenting associated landmarks and campsites. This is especially true when original-source historical documentation is limited.

In my research, I acknowledge my use of inference to produce my results to the best of my ability, and do not claim to have produced "absolute truth."

Steve F. Russell
2010

About the Author



Steve F. Russell, PhD, PE, is an Emeritus Associate Professor in the Department of Electrical and Computer Engineering at Iowa State University, Ames, Iowa. He was born in Lewiston, Idaho, and grew up along the Lewis and Clark Trail in north central Idaho and western Montana. Since 1985 he has conducted scholarly research on the historic trails of western Montana and north-central Idaho, and the Oregon-California Trail Systems. He is a recognized expert on the Lewis and Clark National Historic Trail where it crosses the mountains between the Missouri and Columbia Rivers.

For the last 30 years, he has spent summers doing primative hiking and camping, documenting the old trails on maps and with GPS. He spends winter evenings at his computer, processing the data and making maps. He has also amassed the largest collection of trail research materials in existence for this area. A few of the other historic trails he researches include the Lolo Trail National Historic Landmark, the Mullan Wagon Road, the Virginia City and Lewiston Wagon Road, Northern and Southern Nez Perce Trails, and the Carroll Trail. He has published several books and papers on historic trails and has received several honors, including the Esto Perpetua award from the State of Idaho, for his contributions to Idaho history. He is a past president of the Nez Perce National Historic Trail Foundation.

As an Electrical Engineer, Dr. Russell has worked in industry, as a pioneer, on communication systems such as TACSATCOM, the first world-wide satellite communication system, and the NAVSTAR Global Positioning System, now known simply as GPS. He is also a Registered Professional Engineer and a private consultant. His professional electrical engineering interests are communication systems, digital signal processing (DSP), Global Positioning System (GPS), and radio frequency (RF) design. He has taught many different courses in electric circuits, communication systems theory, DSP, spread spectrum, wireless security, spectral analysis, computer networking, discrete mathematics, signals and systems, and statistical communications theory. He has worked on numerous research projects with Rockwell-Collins. Dr. Russell is a Senior Member of IEEE and has served as student branch advisor for the Central Iowa Section of IEEE.

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Research Resources:
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https://www.researchgate.net/profile/Steve_Russell3
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https://trailresearch.org
"A Mans First Duty is to His Own Conscience and Honor," 1884, Mark Twain (1835-1910)